



32E05NE0027 OM91-035 ST. LAURENT

010

**ST. LAURENT PROPERTY  
DIAMOND DRILLING REPORT  
FEBRUARY 1991**

**Joe MacPherson  
Timmins Office**

**April 15, 1991**



32E05NE0027 OM91-035 ST. LAURENT

010C

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## SUMMARY

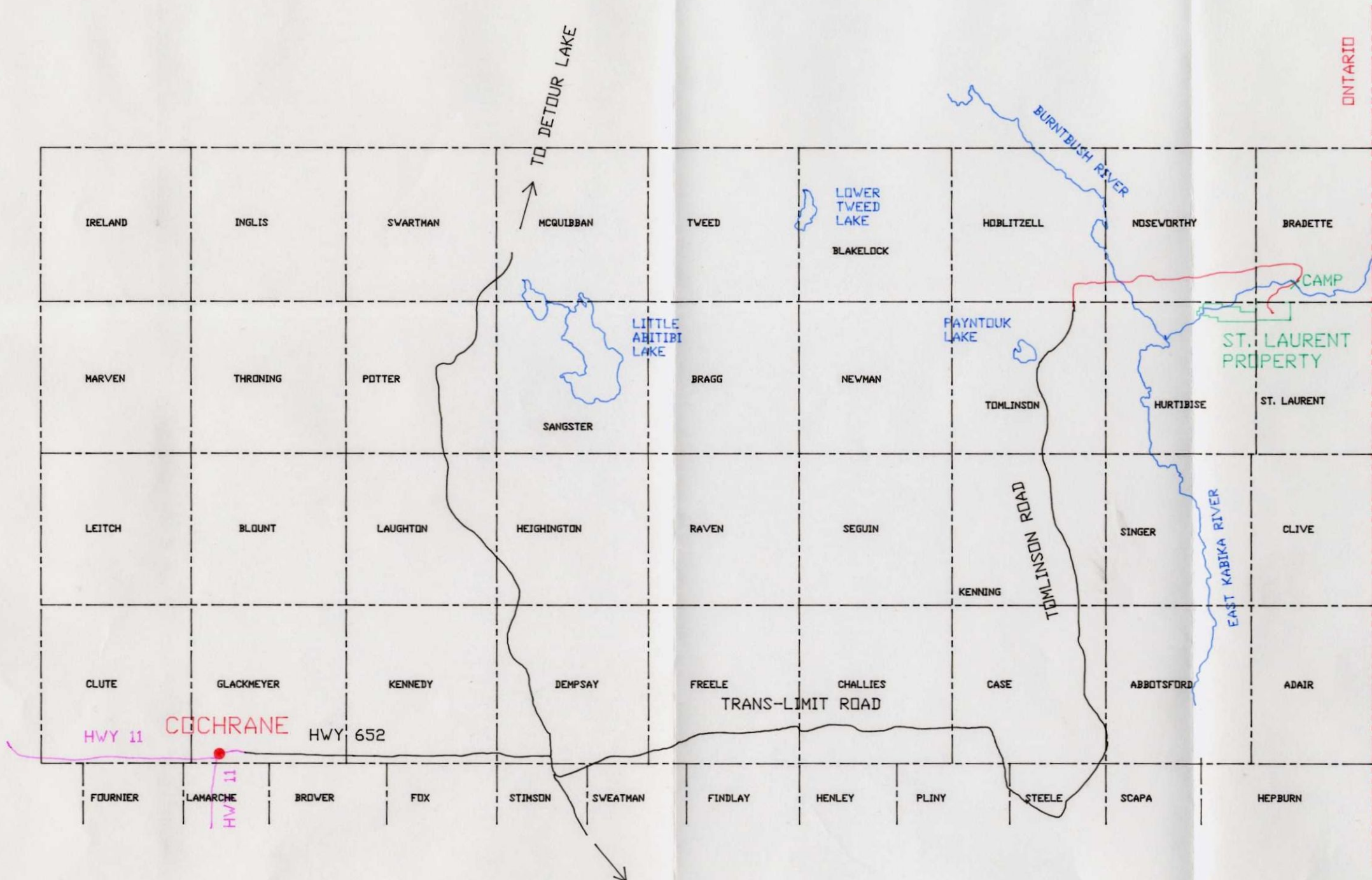
A diamond drilling program consisting of 1883 metres in 8 holes was completed on TOTAL Energold's property in St. Laurent and Hurtubise townships during the period February 12-26, 1991. The company holds a group of 89 contiguous claims in the above-mentioned townships, centred approximately 120 kilometres northeast of Cochrane, Ontario.

The drill program targeted on several Induced Polarization anomalies located during a survey carried out in the fall of 1990. These IP anomalies were interpreted to be graphitic shear zones similar to that hosting Inco's Golden Pond deposit to the northeast.

The stratigraphy consists of a band of iron tholeiitic basalts striking ENE through the center of the property. To the south, a thick sequence of clastic and chemical metasediments were encountered, while to the north, a similar sequence was located, flanked to the north by a thin unit of felsic volcanics and, further north, intermediate to mafic volcanics. All rock units were moderately to intensely altered and deformed.

The results of the drill program confirmed the presence of a strong, wide alteration/deformation zone conformable with stratigraphy, having a strike length of at least 3 kilometres and widths approaching 1 kilometre. Gold values, however, were very low and no economic values were intersected.

It is recommended that no further work take place at this time. Filing of all assessment work will retain the claims in good standing for a period of two years.



LEGEND

- Paved Highway
- Gravel Road
- Winter Road

**TOTAL ENERGOLD CORPORATION**

**ST. LAURENT PROPERTY**

**LOCATION AND ACCESS**

*JMP*

Drawn: J.M.P.	Checked: J.M.P.	Scale:	Drawing: SLACCESS
Date: APRIL, 1991	Revised: APRIL, 1991	Province: Ontario	NTS: 32 E/5



## **LOCATION AND ACCESS**

The St. Laurent Property consists of 89 contiguous claims located along the northern borders of St. Laurent and Hurtubise townships, in the District of Cochrane, Ontario. The property is centred 120 kilometres northeast of Cochrane, in NTS sheet 32E/5.

Access to the property is via a series of logging roads from Cochrane, where the Detour Lake Mine road leads north to the intersection with the Trans-Limit Road, which heads due east to the Quebec border. The Tomlinson Road leads north from kilometre 89 on the Trans-Limit Road. At the end of this road, a distance of some 45 kilometres, a network of winter roads extends east for a distance of 32 kilometres to the north part of the property on the Burntbush River.

## **REGIONAL GEOLOGY**

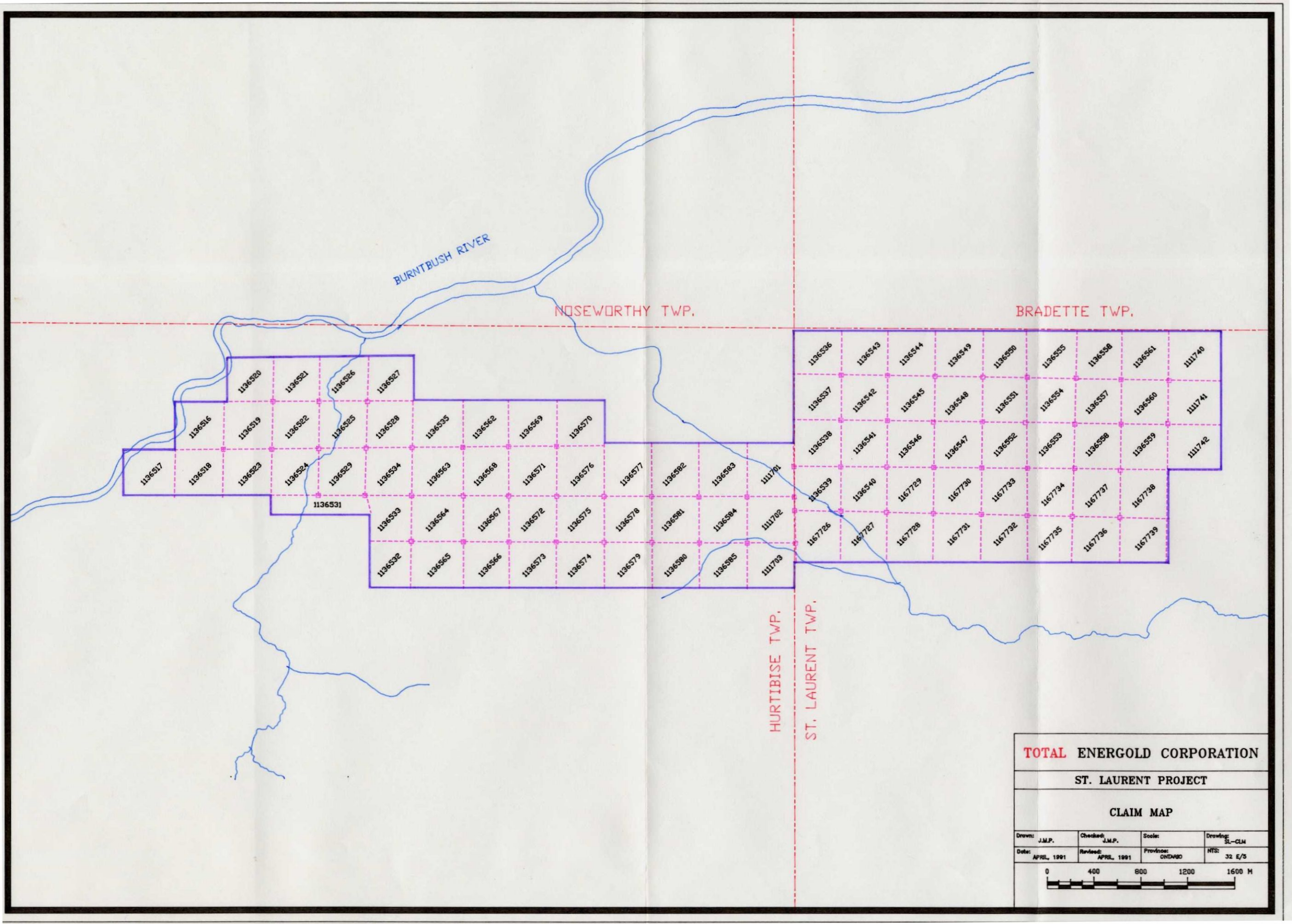
The property is located near the northwest margin of the Abitibi Greenstone Belt, in the Casa Berardi area. The regional geology is comprised of three units, bounded by granitic rocks to the north and south. The lower unit consists of mafic and ultramafic flows and comagmatic intrusives. The middle unit is a complex assemblage of felsic to mafic volcanics, clastic and chemical metasediments, and is the primary host to gold and base metal mineralization in the area. The third and youngest unit is comprised predominantly of clastic sediments. All three units have undergone greenschist to lower amphibolite grade metamorphism.

## **PROPERTY GEOLOGY**

The St. Laurent Property is located in the middle regional unit, and hosts a homoclinal sequence of clastic and chemical sediments, minor mafic volcanics, and felsic volcanics, associated epiclastic rocks and related synvolcanic intrusives. All units dip steeply to the south, and have been regionally metamorphosed to greenschist facies. The sequence has been variably altered and deformed by a strong, wide deformation zone trending subparallel to stratigraphy. This deformation zone has a strike length of tens of kilometres and was encountered on previous drilling on TOTAL's Collet property 20 kilometres to the east in Quebec.

## **RESULTS OF THE DRILL PROGRAM**

There are numerous IP chargeability and resistivity features present on the property. Those targeted for diamond drilling were interpreted to represent either graphitic shear zones similar to the Casa Berardi Fault with the potential to host lode gold deposits or silicified zones (resistivity highs) hosting disseminated gold-bearing sulfides.



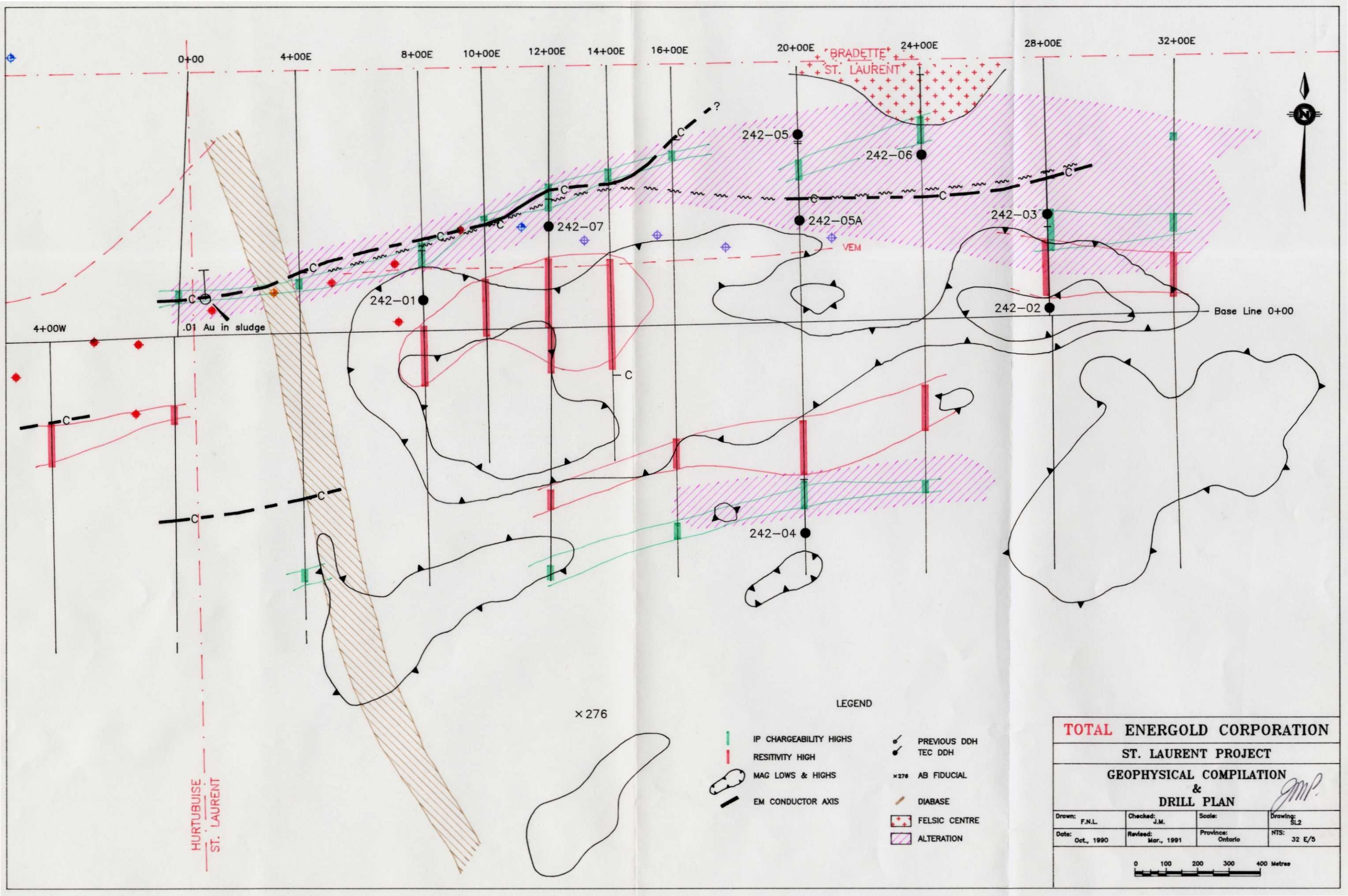
**TOTAL ENERGO GOLD CORPORATION**

**ST. LAURENT PROJECT**

**CLAIM MAP**

Drawn: J.M.P.	Checked: J.M.P.	Scale:	Drawing: SL-CLM
Date: APRIL, 1991	Revised: APRIL, 1991	Province: ONTARIO	NTS: 32 E/3

0 400 800 1200 1600 M



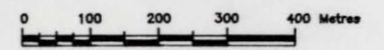
HURTUBUISE  
ST. LAURENT

LEGEND

- | IP CHARGEABILITY HIGHS
- | RESISTIVITY HIGH
- MAG Lows & Highs
- EM CONDUCTOR AXIS
- PREVIOUS DDH
- TEC DDH
- x 276 AB FIDUCIAL
- DIABASE
- FELSIC CENTRE
- ALTERATION

**TOTAL ENERGOLD CORPORATION**  
**ST. LAURENT PROJECT**  
**GEOPHYSICAL COMPILATION**  
**&**  
**DRILL PLAN**

Drawn: F.N.L.	Checked: J.M.	Scale:	Drawing: SL2
Date: Oct., 1990	Revised: Mar., 1991	Province: Ontario	NTS: 32 E/5



All drill holes intersected strong alteration and deformation. Felsic volcanics were strongly altered to sericite and exhibited signs of intense ductile shearing. The chemical sediments (chert, jasper iron formation) were highly brecciated and fractured, and commonly exhibited remobilization of primary sulfides into fractures.

The amount of quartz veining was usually less than 1%, occurring as narrow irregular stringers and, less commonly, discrete veins approaching 1 metre in width. Sulfide content of the veins was very low.

Gold values were low in all rock types. The highest values of the program (70-82 ppb Au) were encountered in a brecciated chert unit with 5% fracture-controlled sulfides in DDH 242-04. The graphitic shears and the quartz veins they host rarely exceeded gold contents of 10 ppb.

### **CONCLUSIONS AND RECOMMENDATIONS**

The February drill program on the St. Laurent property delineated a strong, wide regional deformation zone conformable with stratigraphy. Gold values within the deformation zone were uniformly low.

It is recommended that no further work be done on the property at this time.



CERTIFICATION

I, Joseph A. MacPherson, of Newmarket, Ontario hereby certify that:

- 1) I am a graduate from Laurentian University, Sudbury, Ontario obtained in May 1980, with an Honours B.Sc. in Geology.
- 2) I have been practising my profession in Canada since 1980.
- 4) I have no direct interest in the properties, leases or securities of TOTAL Energold Corporation.
- 5) I have based conclusions and recommendations contained in this report on knowledge obtained from geophysics and diamond drilling conducted on the property between November 1990 and March 1991.

Dated this 15<sup>th</sup> day of April, 1991  
Timmins, Ontario

\_\_\_\_\_  
Joseph A. MacPherson

CERTIFICATION

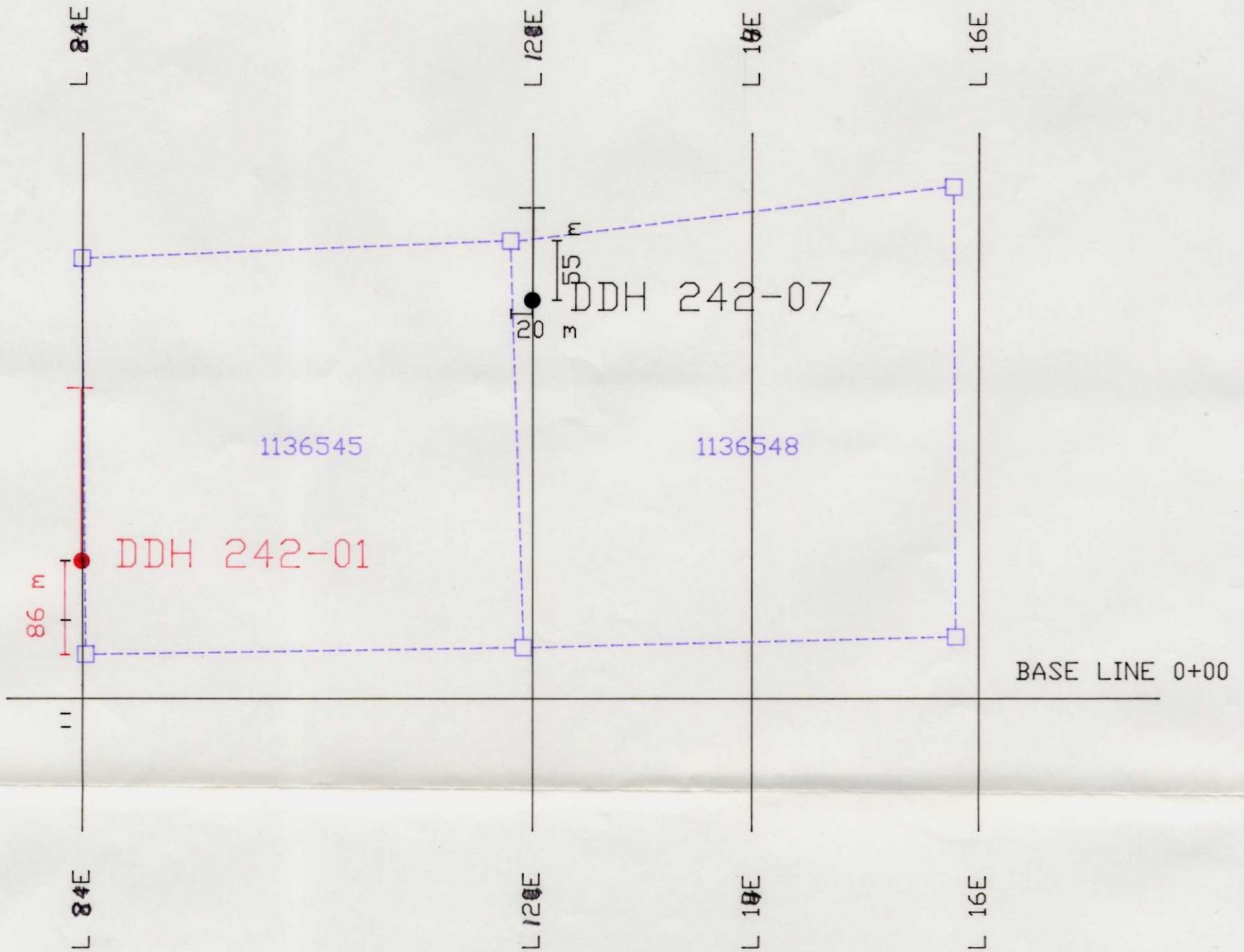
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Dated this 15<sup>th</sup> day of April, 1991  
Timmins, Ontario

  
\_\_\_\_\_  
Joseph A. MacPherson





**TOTAL ENERGOLD CORPORATION**

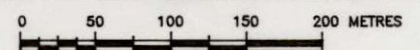
**ST. LAURENT**

**LOCATION MAP**

**DDH 242-01**

*JMP*

Drawn: J.M.P.	Checked: JMP	Scale: 1:5000	Drawing: SL1LOC
Date: March, 1991	Revised: April, 1991	Province: Ontario	NTS: 32 E/5



ITOTAL ENERGOLD CORPORATION

DIAMOND DRILL RECORD

Co-ords: 100N                      Section: L800E                      HOLE NO: 242-01  
Bearing: 360°                      Core Size: BQ                      Property: St. Laurent  
Dip: -47°                      Grid System:                      Location: St. Laurent Twp.  
Elevation:                      Claim: 1136542, 1136545  
Length: 231.01m                      Date Started: Feb. 13, 1991  
Measurement: metres                      Date Completed: Feb. 18, 1991  
Comments:                      Logged By: Joe MacPherson

*J. A. MacPherson*

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
18.29		-47°	121.95		-38°	232.01		-35°
60.98		-40°	182.93		-35°			

LOG SUMMARY

FROM	TO	LITHOLOGY
0.00	17.07	CASING
17.07	32.60	RHYOLITE TO DACITE FLOWS
32.60	47.30	ASSEMBLAGE OF FELSIC TUFF, LAPILLI TUFF AND AGGLOMERATE, SERICITIZED, LOCALLY SILICIFIED
47.30	79.50	COARSE FELSIC FRAGMENTALS: LAPILLI TUFF TO AGGLOMERATE
79.50	92.84	INTERBEDDED FELSIC TUFF, CRYSTAL TUFF AND THIN DACITIC TO RHYOLITIC FLOWS
92.84	97.20	FELSIC TUFF WITH ARGILLACEOUS MATRIX
97.20	103.60	FELSIC APHANITIC RHYOLITE AND FINE-GRAINED TUFFS
103.60	151.69	MASSIVE QUARTZ EYE RHYOLITE
151.69	154.34	SERICITIC FELSIC TUFFS
154.34	158.70	SILICEOUS INTERFLOW SEDIMENTS
158.70	163.14	RHYOLITE FLOW
163.14	166.65	GRAPHITIC SHEAR ZONE
166.65	171.80	MASSIVE RHYOLITE FLOW WITH GRAPHITIC FRACTURES
171.80	175.57	GRAPHITIC SHEAR ZONE AND BRECCIATED RHYOLITE
175.57	182.55	SILICIFIED TECTONIC BRECCIA
182.55	189.87	MIXED ASSEMBLAGE OF PYRITIC ARGILLITE AND FELSIC TUFF TO LAPILLI TUFF
189.87	221.29	VARIABLY ALTERED FELSIC VOLCANIC FLOWS AND FINE TUFFS
221.29	232.01	MASSIVE RHYOLITE FLOWS
	232.01	END OF HOLE

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-01

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
0.00	17.07	<b>OVERBURDEN</b>					
17.07	32.60	<b>RHYOLITE TO DACITE FLOWS</b> Sequence of massive to strongly foliated felsic flows, varying in composition from rhyolite to dacite. Dacite flows are fine to medium grained, and consist of approximately equal amounts of feldspar and quartz, often exhibiting an ophitic growth, imparting a lathe-like appearance to the flow. The rhyolite is massive aphanitic and hard. Both rock types are variably altered and sericitic. The rhyolites are more highly altered, lime green and exhibit numerous slip planes at 60° to the C.A. The dacite flows, although altered, are not as obviously sericitic as the rhyolites. No sulfide mineralization noted.	20601 20602	19.45 31.30	20.12 32.60	0.67 1.30	0 0
		19.45 to 20.12 10 cm rusty shear at 19.55 meters, and a 20 cm rusty quartz ankerite vein centered at 19.90 meters. Trace pyrite in rusty quartz vein. Rusty shear is broken and very fissile.					
		31.30 to 32.60 section contains 2 quartz ankerite chlorite veins, 5-10cm wide, trace pyrite, hosted by a well foliated and sericitic rhyolite.					
32.60	47.30	<b>ASSEMBLAGE OF FELSIC TUFF, LAPILLI TUFF AND AGGLOMERATE, SERICITIZED, LOCALLY SILICIFIED</b> Complex section of thinly bedded tuffs, highly altered and sheared. General gradation down the hole to coarser fragmentals. Clast types are: massive aphanitic rhyolite (40%), quartz eye rhyolite (40%), argillite (15%), and less than 5% pyrite and/or pyrite/graphitic argillite. Largest lapilli noted was 6 cm in dimension. Both clasts and host rock of the tuffs are highly altered, and the host is also locally silicified. 5% chloritic stringers at random angles to the C.A. Strong foliation and local shearing at 55° to the C.A. Contacts are generally gradational between tuff units, although the finer units are well sorted. All clasts are angular. No crystal tuff noted. Note: samples taken on the basis of geological contacts and/or changes in intensity of alteration.	20603 20604 20605 20606 20607 20608 20609 20610 20611 20612 20613	32.60 33.50 34.90 35.52 36.50 37.18 37.18 38.60 40.00 41.75 41.75 43.25 43.25 44.90	33.50 34.90 35.52 36.50 37.18 38.60 40.00 41.75 43.25 44.90	0.90 1.40 0.62 0.98 0.68 1.42 1.40 1.75 1.50 1.65 2.40	0 0 7 0 0 0 0 0 10 0 0

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-01

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		32.60 to 33.50 25% irregular quartz ankerite veining, intense sericitic slips at 55° to the C.A. Narrow 1 cm quartz veinlet at 10° to the C.A.					
		33.50 to 34.90 5% quartz ankerite veining, local 10-20 cm of intense sericite alteration.					
		34.90 to 35.52 Light grey, possibly interflow sediments. Trace pyrite.					
		35.52 to 36.50 Brecciated, fractured (chloritic), 15% quartz ankerite veining, local narrow intense sericitic shears (5 cm wide).					
		36.50 to 37.18 Silica-flooded and strongly sericitic - original texture obliterated. Grey to lime green, trace pyrite.					
		37.18 to 38.60 20 cm quartz ankerite vein at start of this predominantly tuffaceous section. Moderately to strongly sericitic, forming strong schistosity at 50 degrees to the CA.					
		38.60 to 40.00 Predominantly tuff, with a few lapilli size fragments. Notable for a few 1 cm rounded fragments of pyritic argillite. Continued strong to intense alteration.					
		40.00 to 41.75 Tuff, sericitic, locally silicified, tr pyrite, occasional argillaceous slip, tr pyrite.					
		41.75 to 43.25 Tuff, coarsening towards the end of the section to lapilli tuff. Fragments up to 3 cm in largest dimension. Larger fragments more sericitic than the matrix.					
		43.25 to 44.90 25 cm graphitic shear at top of section. Below this the tuff/lapilli tuff is intensely sheared and altered to sericite and quartz. 1-2% cubic pyrite.					
		44.90 to 47.30 80% core recovery. Broken and quartz veined lapilli tuff. 5% white quartz veins at a variety of angles to the CA. 1% pyrite an average. 1cm massive pyrite at 47.30 meters.					
47.30	79.50	<b>COARSE FELSIC FRAGMENTALS: LAPILLI TUFF TO AGGLOMERATE</b> Poorly sorted felsic fragmental with clasts					

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-01

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		<p>ranging in size from a few millimeters to in greater than 10 cm. All fragments are felsic and vary in composition from massive aphanitic to quartz eye to feldspar phyric (dacite). Matrix is distinctive black, fine grained, argillaceous, and possibly locally graphitic. Matrix unaltered, some felsic fragments are weakly sericitized. Overall, unit is poorly sorted, and all fragments are angular, with the exception of the small ones, which are subrounded to rounded. Nil pyrite. Upper contact with altered lapilli tuff is very sharp - possibly a shear contact between blocks in a wide shear zone??</p> <p>Below 58.2 meters, the matrix gradually becomes lighter in colour and more siliceous. Composition of the clasts is the same, and the rock is essentially unaltered. A weak local calcite crackle fracture is present.</p>					
79.50	92.84	<p><b>INTERBEDDED FELSIC TUFF, CRYSTAL TUFF AND THIN DACITIC TO RHYOLITIC FLOWS</b></p> <p>Medium grey, siliceous, hard. Beds vary from a few cm to 30 cm thick and often exhibit sharp contacts at 65 degrees to the CA. Occasional weak sericitic wisps. Tuffaceous beds are clast-supported - mainly felsic quartz eye rhyolite to aphanitic rhyolite. Occasional lapilli size clast may be present. Crystal tuffs are usually quartz eye bearing, with occasional minor feldspar. Dacite flows are fine grained to locally medium grained and feldspar phenocryst-rich. The fine grained tuffs may contain up to 0.5% cubic pyrite. Rare white quartz vein.</p> <p>Below 81 meters, the unit is almost entirely composed of lapilli tuff, with individual lapilli up to 6 cm in size. Fragment types vary from aphanitic rhyolite to quartz eye rhyolite to dacite. Sericite continues to be present only as thin irregular wisps. Occasional very small (mm size) fuchsitic fragment present. Tr cubic pyrite throughout.</p>					
92.84	97.20	<p><b>FELSIC TUFF WITH ARGILLACEOUS MATRIX</b></p> <p>Black, well foliated to locally sheared at 60 degrees to the CA. Fragments range from 1-2</p>	20614	96.10	96.60	0.50	0



TOTAL ENERGO GOLD CORPORATION

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		mm to 1 cm and rarely larger. They consist of individual quartz and feldspar grains, and larger (up to 1 cm) felsic rock fragments (aphanitic to quartz eye rhyolite) and rare lapilli size fragments of varying composition. Locally sheared and quartz veined, no pyrite noted.					
		96.10 to 96.60 Shear zone with a 15 cm white quartz vein, no pyrite, chloritic fractures. No alteration.					
		After 96.60 the rock becomes more foliated is cut by narrow shears, very chloritic, and usually occupied by white quartz veins intruding parallel to foliation.					
97.20	103.60	<b>FELSIC APHANTIC RHYOLITE AND FINE-GRAINED TUFFS</b>	20615	97.20	98.50	1.30	7
			20616	98.50	99.37	0.87	10
		Fine-grained rhyolite and minor tuff, moderately to locally strongly altered and sheared over 5-15 cm. Grades from the overlying black argillite-matrix tuff to a light grey-green colour. Numerous distinct sericite stringers oriented at 70 degrees to the CA. Lower contact sharp and marked by 2 cm fault gouge and 1 15 cm white quartz vein.	20617	99.37	100.85	1.48	0
			20618	100.85	102.41	1.56	0
			20619	102.41	103.60	1.19	10
		Shear zones noted at: 92.44 (20 cm)-argillaceous;					
		99.25 (10 cm)-sericitic, unconsolidated gouge;					
		102.65 (1 cm)-sericitic;					
		103.50 (2 cm)-sericitic, unconsolidated gouge					
		97.20-98.50 Locally sheared, 5% white quartz veining, 1-2% disseminated pyrite at 97.40 meters, in argillaceous shear.					
		98.50-99.37 As above, shear is sericitic. 2% white quartz veining. Weakly pyritic at 98.90 meters.					
		99.37-100.85 Sericitic flows, 1% grey crackle fracture, tr pyrite, 1% white quartz veining.					
		100.85-102.41 As above.					
		102.41-103.60 As above, 15 cm white quartz vein at lower contact.					

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-01

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
103.60	151.69	<p><b>MASSIVE QUARTZ EYE RHYOLITE</b>                      Massive, light greenish-grey, moderately to locally very hard. Distinctive feature is 5% rounded grey translucent quartz eyes and occasional fuchsitic fragment (highly altered mafic rock fragment or ash?). Also, 3% masses of yellow sericite/ankerite, which may be the alteration product of a third type of fragment. 1% random grey quartz-filled crackle fractures, tr pyrite. Locally broken and ground, but otherwise quite competent.</p> <p>Grading into short sections (maximum 20 cm) of feldspar phyric flow at: 116.05m, 121.30m, 122.25m, 122.85m</p> <p>133.80 3 cm white quartz vein associated with 2 cm of unconsolidated fault gouge.</p> <p>Below 140.00 meters, the core takes on a weak foliation oriented at 65-70 degrees to the CA. Also, there are 2-3% grey quartz-filled random fractures below this point as well.</p> <p>140.00-143.00 1 meter of ground core.</p> <p>144.15-151.69 Increasing sericite content and degree of foliation.</p>					
151.69	154.34	<p><b>SERICITIC FELSIC TUFFS</b>                      Strongly foliated at 55 degrees to the CA. Foliation formed by parallel alignment of sericite wisps and masses. Local fault gouge, as at 151.75 meters. Minor quartz veining associated with these faults. Tr pyrite.</p> <p>151.69-153.30 Sericitic, 10% grey quartz carbonate veinlets and masses parallel to foliation. Tr pyrite.</p> <p>153.30-154.34 As above. 40 cm of strong faulting with gouge and 20% white quartz veining centered at 154.15 meters. Tr pyrite.</p>	20620 20621	151.69 153.30	153.30 154.34	1.61 1.04	7 0
154.34	158.70	<p><b>SILICEOUS INTERFLOW SEDIMENTS</b>                      Moderately silicified, dark grey to black, not sericitic, moderately foliated at 60 degrees to the CA. 15 cm of unconsolidated fault gouge at</p>					

TOTAL ENERGO GOLD CORPORATION

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		155.50 meters. 5 cm crack-seal grey quartz vein at 155.15 meters. Tr pyrite in sericitic fractures in vein.					
		154.34-155.80 Weakly sericitic, faulted, 2% grey crack-seal quartz veining at 155.15 meters. Tr pyrite.					
158.70	163.14	<b>RHYOLITE FLOW</b> Strongly deformed and brecciated, very weakly sericitic. Crackle fracture common, weak foliation developed at 55 degrees to the CA.					
163.14	166.65	<b>GRAPHITIC SHEAR ZONE</b> Very fissile, rock highly deformed, local 100% graphite, minor pyrite and quartz veining. Intense shearing at 65 degrees to the CA.	20622	163.14	163.70	0.56	0
		163.70 to 165.00 <b>100% graphitic fault gouge.</b> Totally unconsolidated.					
		163.14-163.70 60% graphite, 5% late quartz veining, 1% pyrite.					
166.65	171.80	<b>MASSIVE RHYOLITE FLOW WITH GRAPHITIC FRACTURES</b> Massive dark grey rhyolite is cut by 15-25% random fractures, filled with graphite-chlorite. Minor 1 cm fault gouge. Local sericitic patches contain black quartz ankerite stringers with 1-4% very finely disseminated <b>arsenopyrite</b> . The arsenopyrite-bearing sections occur from 166.65-167.6, from 168.50-169.00, and at 170.45, 171.20. The sulphide is very subtle and difficult to observe under 20X lens. Distinguishing characteristic for arsenopyrite-bearing rock is slight increase in pervasive sericite, imparting a light green tinge to the otherwise grey rock.	20623 20624 20625 20626 20627 20628 20629 20630 20631	166.65 167.60 168.50 169.00 169.50 170.00 170.50 171.00 171.55 171.80	167.60 168.50 169.00 169.50 170.00 170.50 171.00 171.55 171.80	0.95 0.90 0.50 0.50 0.50 0.50 0.50 0.55 0.25	17 0 0 0 0 0 0 0 0
		166.65 to 167.60 Numerous sightings of fine <b>arsenopyrite</b> in narrow irregular black quartz ankerite veinlets. Light green tinge to section on average. Tr pyrite.					
		167.60 to 168.50 Crackle-fractured siliceous rhyolite. 25% irregular fractures filled with graphite and chlorite. Tr pyrite.					

TOTAL ENERGY GOLD CORPORATION

HOLE NO: 242-01

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
	168.50 to 169.00	Arsenopyrite-bearing section, as per 166.65-167.60.					
	169.00 to 169.50	Crackle fractured siliceous rhyolite. 10% graphite-chlorite fractures. Tr pyrite.					
	169.50 to 170.00	As above. 10% graphite-chlorite fractures.					
	170.00 to 170.50	As above. 15% fractures. Slight greenish tinge to rock locally, but no arsenopyrite noted. Tr pyrite.					
	170.50 to 171.00	As above. 20% fractures.					
	171.00 to 171.55	As above. Lower contact sheared, chloritic and graphitic. 1 sight arsenopyrite noted.					
	171.55 to 171.80	Mixed graphitic shear and siliceous fractured rhyolite.					
171.80	175.57	<b>GRAPHITIC SHEAR ZONE AND BRECCIATED RHYOLITE</b>	20632	171.80	173.00	1.20	0
		Local intense graphitic shears cutting brecciated and locally sericitic rhyolite. Section is broken and crushed - core recovery 60%. Local minor pyrite, arsenopyrite and chalcopyrite, always in black quartz ankerite veinlets or masses. The graphite-chlorite fracture fillings are mostly absent in this section, compared with the previous section.	20633	173.00	174.00	1.00	0
			20634	174.00	175.57	1.57	0
	171.80 to 173.00	Numerous strong graphitic shears, core broken, recovery 60%.					
	173.00 to 174.00	Broken core, mainly brecciated rhyolite.					
	174.00 to 175.57	60% recovery, local bits of sericitic rhyolite with tr arsenopyrite.					
175.57	182.55	<b>SILICIFIED TECTONIC BRECCIA</b>	20635	175.57	175.95	0.38	0
		Felsic volcanic fragments, angular and widely varying in size, hosted by a black aphanitic matrix composed of graphite and chloritic argillite (??), strongly silicified, locally pyritic. Two kinds of pyrite are present. The first is	20636	176.95	177.50	0.55	10
			20637	177.50	178.00	0.50	7
			20638	178.00	178.50	0.50	17
			20639	178.50	179.00	0.50	0
			20640	179.00	179.50	0.50	14

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-01

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		fine-grained and has a dull lustre. It occurs as masses within the argillaceous matrix of the breccia. The second type of pyrite has a brighter lustre and is coarser-grained, occurring as cubes and local masses with white to light grey quartz carbonate veinlets and in narrow fractures crosscutting both matrix and breccia fragments.	20641	179.50	180.00	0.50	10
			20642	180.00	180.50	0.50	14
			20643	180.50	181.00	0.50	0
			20644	181.00	181.50	0.50	14
			20645	181.50	182.00	0.50	10
			20646	182.00	182.55	0.55	17
		175.57 to 176.95 Black, fine-grained, foliated at 60 degrees to the CA. 5% felsic rock fragments up to 1 cm dimension. Tr pyrite only. Brecciation and accompanying silicification starts at 176.95 meters and increase in intensity down the hole. Percentage of quartz veining also increase down the hole. Higher pyrite contents appear to be associated with increase intensity of silicification.					
		176.95 to 177.50 Heterolithic breccia, although all fragments are felsic. Tr pyrite in silicified sections, which are short (10 cm) but increase in intensity and frequency towards the lower contact.					
		177.50 to 178.00 Moderate pervasive silicification. Some felsic fragments sericitic. 2% pyrite, mainly as masses within the black matrix of the breccia. 1% white irregular quartz veining.					
		178.00 to 178.50 As above. 2% pyrite in matrix.					
		178.50 to 179.00 3-5% pyrite, all in fractures or in narrow quartz ankerite veins within the black siliceous matrix of the breccia. Few breccia fragments in this section.					
		179.00 to 179.50 Strongly silicified. 3% pyrite, as masses and a minor amount in fractures with quartz.					
		179.50 to 180.00 1% pyrite, 10% white irregular quartz veining, no pyrite in veins.					
		180.00 to 180.50 5% fine pyritic masses in black siliceous matrix. A further 2-3% bright pyrite in 10% narrow CA-parallel quartz ankerite stringers.					

TOTAL ENER GOLD CORPORATION

HOLE NO: 242-01

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		180.50 to 181.00 Low-angle quartz-pyrite stringers, 10% pyrite.					
		181.00 to 181.50 As above. quartz stringers crenulated at 60 degrees to CA (same as general foliation).					
		181.50 to 182.00 20% CA-parallel quartz veining, 25% massive and bright pyrite.					
		182.00 to 182.55 20% sedimentary (dull lustre) pyrite. 10% bright pyrite in quartz veins.					
		Below 182.55 meters, the intensity of silicification decreases, as does the intensity of brecciation. The core takes on a more sedimentary appearance, as evidenced by the appearance of highly contorted fine grained bands of pyrite.					
182.55	189.87	<b>MIXED ASSEMBLAGE OF PYRITIC ARGILLITE AND FELSIC TUFF TO LAPILLI TUFF</b>	20647	182.55	183.00	0.45	14
			20648	183.00	183.50	0.50	10
			20649	183.50	184.00	0.50	14
		Complex assemblage of sediments and felsic tuffs, Generally, the tuffaceous rocks are moderately sericitic, while the sediments appear unaltered, with the exception of local minor silicification and quartz veining. The argillaceous units are usually cut by several graphitic shears. The result is broken and crushed rock and poor core recoveries in these sections.	20650	184.00	184.50	0.50	17
			20651	184.50	185.00	0.50	14
			20652	185.00	185.50	0.50	17
			20653	185.50	186.00	0.50	10
			20654	186.00	186.50	0.50	14
			20655	186.50	187.00	0.50	10
			20656	187.00	187.50	0.50	14
			20657	187.50	188.00	0.50	7
			20658	188.00	188.50	0.50	0
			20659	188.50	189.00	0.50	14
		182.55 to 185.00 Generally argillite, cut by several graphitic shears, at 184.28, 184.58 and 185.55 meters. 3% pyrite on average.	20660	189.00	189.87	0.87	14
		182.55 to 183.00 25% grey quartz ankerite veining at 20 degrees to the CA, containing 10% pyrite along the vein margins. A further 5% pyrite in narrow irregular fractures. Moderately silicified.					
		183.00 to 183.50 Breccia. Large fragments, tr pyrite.					
		183.50 to 184.00 Graphitic shear at 183.40. 5%					

TOTAL ENER GOLD CORPORATION

HOLE NO: 242-01

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		pyrite in black silicified matrix of breccia.					
		184.00 to 184.50 2 cm sericitic shear at 184.05. 15 cm grey quartz ankerite vein with 3% pyrite as masses from 184.5-184.65 m. Overall, moderately silicified.					
		184.50 to 185.00 Sericitic and brecciated towards the lower contact. 1% pyrite.					
		185.00 to 185.50 30 cm of weakly sericitic and crackle fractured massive felsic volcanic. Tr pyrite. Fractures filled with grey quartz.					
		185.50 to 186.00 2 cm graphitic/sericitic fault gouge at 185.97 meters. Becoming moderately sericitic towards end of section. 1% pyrite, 3% dark grey quartz ankerite stringers.					
		186.00 to 186.50 Moderately sericitic, patchy silicification, tr pyrite. 2% black quartz ankerite stringers.					
		186.50 to 187.00 Last 20 cm is black fractured quartz vein with tr pyrite in fractures.					
		187.00 to 187.50 Dark grey to black quartz vein. Last 20 cm faulted and broken core. Poor recovery (80%). 1% pyrite.					
		187.50 to 188.00 Faulted upper contact, continuing weakly silicified, sericitic. 2% masses of pyrite.					
		188.00 to 188.50 Grey with light green tinge. 3% black irregular quartz crackle fracture. 2% pyrite.					
		188.50 to 189.00 As above.					
		189.00 to 189.87 Broken core. Black, weakly silicified, occasional sericitic wisp. 1 cm unconsolidated graphitic fault gouge at lower contact.					
189.87	221.29	<b>VARIABLY ALTERED FELSIC VOLCANIC FLOWS AND FINE TUFFS</b>	20661	192.85	193.85	1.00	0
			20662	195.20	196.05	0.85	0
		Sharp upper contact with argillaceous/graphitic	20663	199.00	200.00	1.00	14
		shear zone at 189.87 meters. Section is a	20664	203.33	207.77	4.44	10
			20665	215.25	216.27	1.02	10

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-01

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		mixture of light greenish grey to black. The latter is due to intense fracturing and subsequent fracture filling by black quartz ankerite veinlets. Tr overall, locally 2-3% in areas of more intense fracturing. 1% white quartz veining in sericitic sections only.	20666	216.27	217.55	1.28	0
		192.85 to 193.85 Mixed sericitic and black fractured zone. 15 cm quartz sericite vein in sericitic volcanics, tr pyrite in black fractured volcanics.					
		195.20 to 196.05 Strongly fractured and brecciated felsic volcanic. Minor sericitic sections. 1% white quartz veining. 0.5% disseminated pyrite.					
		199.00 to 200.00 Fine grained, massive, black and silicified. 1-2% disseminated pyrite. May be originally a fine grained felsic tuff.					
		203.33 to 203.77 <b>10 cm sericitic and pyritic fault.</b> 5% pyrite, 10% quartz in fault zone. Remainder of section is massive siliceous rhyolite.					
		Below 203.77 meters, the core continues to consist of alternating black fractured section and moderately foliated sericitic sections. Pyrite content and amount of quartz veining is low.					
		215.25 to 217.55 <b>Sericitic Shear Zone.</b> Massive sericitic sections cut by 25% black quartz ankerite veinlets parallel to foliation (at 55 degrees to CA). Veins contain 1% fine disseminated pyrite.					
		215.25 to 216.27 Sericitic, light green to greenish grey, 10% black quartz ankerite veins, tr pyrite.					
		216.27 to 217.55 As above, 0.5-1% pyrite.					
221.29	232.01	<b>MASSIVE RHYOLITE FLOWS</b> Not altered, medium grey, very siliceous, minor fracturing, no pyrite. Aphanitic to locally quartz eye bearing.					
232.01		<b>END OF HOLE</b>					



**TOTAL ENERGO GOLD CORPORATION**

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SAMPLE #	FROM	TO	LENGTH	Cu (ppm)	Zn (ppm)	Ag (ppm)
20601	19.45	20.12	0.67	9	62	
20602	31.30	32.60	1.30	9	85	
20603	32.60	33.50	0.90	30	56	
20604	33.50	34.90	1.40	49	74	
20605	34.90	35.52	0.62	19	70	
20606	35.52	36.50	0.98	26	68	
20607	36.50	37.18	0.68	25	85	
20608	37.18	38.60	1.42	31	80	
20609	38.60	40.00	1.40	27	79	
20610	40.00	41.75	1.75	39	90	
20611	41.75	43.25	1.50	28	79	
20612	43.25	44.90	1.65	29	81	
20613	44.90	47.30	2.40	27	63	
20614	96.10	96.60	0.50	25	46	
20615	97.20	98.50	1.30	60	58	
20616	98.50	99.37	0.87	31	62	
20617	99.37	100.85	1.48	26	59	
20618	100.85	102.41	1.56	39	68	
20619	102.41	103.60	1.19	23	67	
20620	151.69	153.30	1.61	30	66	
20621	153.30	154.34	1.04	19	57	
20622	163.14	163.70	0.56	61	92	
20623	166.65	167.60	0.95	9	45	
20624	167.60	168.50	0.90	6	26	
20625	168.50	169.00	0.50	5	19	
20626	169.00	169.50	0.50	8	33	

**TOTAL ENERGO GOLD CORPORATION**

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SAMPLE #	FROM	TO	LENGTH	Cu (ppm)	Zn (ppm)	Ag (ppm)
20627	169.50	170.00	0.50	7	30	
20628	170.00	170.50	0.50	8	27	
20629	170.50	171.00	0.50	11	25	
20630	171.00	171.55	0.55	5	25	
20631	171.55	171.80	0.25	8	27	
20632	171.80	173.00	1.20	9	40	
20633	173.00	174.00	1.00	6	35	
20634	174.00	175.57	1.57	71	34	
20635	175.57	176.95	1.38	62	67	
20636	176.95	177.50	0.55	29	31	
20637	177.50	178.00	0.50	144	111	
20638	178.00	178.50	0.50	74	137	
20639	178.50	179.00	0.50	135	125	
20640	179.00	179.50	0.50	164	26	
20641	179.50	180.00	0.50	75	25	
20642	180.00	180.50	0.50	101	27	
20643	180.50	181.00	0.50	126	22	
20644	181.00	181.50	0.50	170	58	
20645	181.50	182.00	0.50	185	52	
20646	182.00	182.55	0.55	271	219	
20647	182.55	183.00	0.45	295	31	
20648	183.00	183.50	0.50	53	58	
20649	183.50	184.00	0.50	126	54	
20650	184.00	184.50	0.50	152	63	
20651	184.50	185.00	0.50	204	41	
20652	185.00	185.50	0.50	10	67	





**LEGEND**

**VOLCANICS**

- V2 Felcic
- V4 Intermediats
- V7 Basalt
- V9 Tuff
- V10 Agglomerate

**SEDIMENTS**

- S3 Greywacke
- S4 Argillite

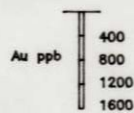
**INTRUSIVES**

- 1R Felcic
- Db Diabase

- ob overburden
- ft fault
- bx breccia
- p pillowed
- qv quartz vein
- gf graphite
- ser sericite
- fc fuchsite
- cb carbonatized
- al allucified
- sl slightly
- alt altered

- po pyrrhotite
- py pyrite
- aspy arsenopyrite
- mt magnetite
- Fe Iron tholeiite

IP Induced Polarization Anomaly



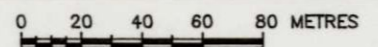
**TOTAL ENERGOLD CORPORATION**

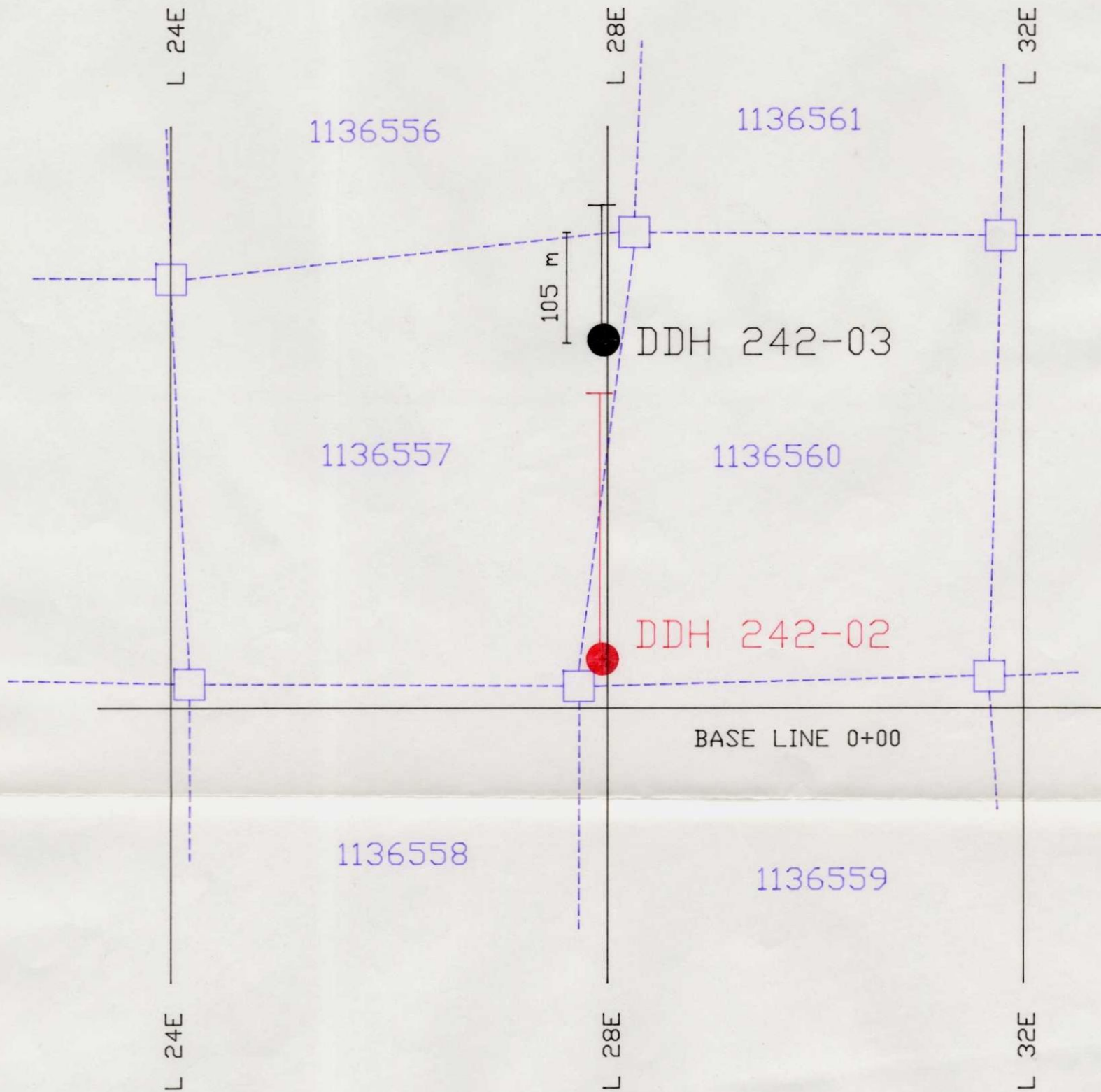
**ST. LAURENT**

DDH 242-1  
Section 8+00 E  
Facing West

*J.M.P.*

Drawn: J.M.P.	Checked: JMP	Scale: 1:2500	Drawing: SL-1
Date: March, 1991	Revised: March, 1991	Province: Ontario	NTS: 32 E/5





**TOTAL ENERGOLD CORPORATION**

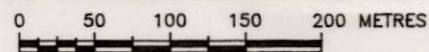
**ST. LAURENT**

**LOCATION MAP**

**DDH 242-02**

*JMP*

Drawn: J.M.P.	Checked: JMP	Scale: 1:5000	Drawing: SL2-LOC
Date: March, 1991	Revised: March, 1991	Province: Ontario	NTS: 32 E/5



TOTAL ENERGO GOLD CORPORATION

DIAMOND DRILL RECORD

Co-ords:	25N	Section:	L2800E	HOLE NO:	242-02
Bearing:	360°	Core Size:	BQ	Property:	St. Laurent
Dip:	-45°	Grid System:		Location:	
Elevation:				Claim:	1136557, 1136560
Length:	367.63m			Date Started:	Feb. 16, 1991
Measurement:	metres			Date Completed:	Feb. 21, 1991
Comments:				Logged By:	Joe MacPherson

*J. A. MacPherson*

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
15.24		-46°	239.63		-35°			
91.46		-45°	365.85		-22°			
163.42		-38°						

LOG SUMMARY

FROM	TO	LITHOLOGY
0.00	10.37	OVERBURDEN
10.37	150.17	MASSIVE MAFIC METAVOLCANIC FLOWS: IRON THOLEIITIC BASALT
150.17	176.85	INTERBEDDED ARGILLITE, INTERMEDIATE TUFF AND JASPER IRON FORMATION
176.85	190.95	CHERT-JASPER IRON FORMATION WITH GRAPHITIC INTERBEDS
190.95	197.05	INTERBEDDED GREYWACKE, GREY-GREEN CHERT AND JASPER IRON FORMATION
197.05	227.00	CLASTIC METASEDIMENTS: MEDIUM TO COARSE GREYWACKE
227.00	230.09	MODERATELY SHEARED AND SERICITIZED GREYWACKE
230.09	236.50	MIXED SEQUENCE OF CHEMICAL AND CLASTIC METASEDIMENTS
236.50	244.14	INTERBEDDED ARGILLITE AND FINE CLASTIC METASEDIMENTS
244.14	246.69	FRACTURED AND BRECCIATED CHERT
246.69	277.17	CLASTIC METASEDIMENTS
277.17	286.69	SHEARED GRAPHITIC AND SERICITIC ARGILLITE
286.69	293.84	FINE GRAINED CLASTIC METASEDIMENTS
293.84	324.93	FELSIC TUFF OR QUARTZ FELDSPATHIC METASEDIMENT
324.93	340.56	INTERBEDDED CHERT, GRAPHITE AND FINE GRAINED ARGILLITE
340.56	367.63	FINE GRAINED CLASTIC METASEDIMENT
	367.63	END OF HOLE

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-02

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
0.00	10.37	<b>OVERBURDEN</b> Clay, sand, gravel, boulders near bedrock.					
10.37	150.17	<b>MASSIVE MAFIC METAVOLCANIC FLOWS: IRON THOLEIITIC BASALT</b>	20252	13.10	13.45	0.35	NS
		Thick unit of massive, medium green, fine to locally medium grained iron tholeiitic flows.	20253	20.10	20.25	0.15	NS
		Weakly chloritic, nil pyrite, 1% irregular quartz calcite veining with trace-1% pyrite. Pervasively carbonatized - calcite.	20254	58.54	59.45	0.91	NS
			20255	59.45	60.60	1.15	NS
			20256	70.63	72.10	1.47	NS
			20257	81.08	81.66	0.58	NS
			20258	140.55	141.40	0.85	NS
			20259	146.35	147.00	0.65	0
		13.10 to 13.45 Quartz calcite vein, 1% cubic pyrite.					
		13.10 to 13.45 As above.					
		20.10 to 20.25 Quartz calcite vein, 1% cubic pyrite.					
		20.10 to 20.25 As above.					
		Amygdaloidal from 29.26-31.00 meters.					
		38.11 to 58.54 Fault Zone. Broken rock, 80% core recovery, rock is very soft and strongly chloritic.					
		58.54 to 60.60 Quartz stringer zone. 15% irregular quartz stringers at various angles to the C.A. Quartz only, no calcite, and the wallrock is not pervasively calcitic as it is above and below the section. Veins contain 5-10% specular hematite and 1% pyrite. Wallrock is moderately to strongly chloritic, medium green, and moderately soft.					
		58.54 to 59.45 15% quartz veining, 3% hematite and 1% pyrite in veins.					
		59.45 to 60.60 15% quartz veining, 10% hematite and 1% pyrite in veins.					
		Below 60.60 meters, the rock is massive, medium green, calcitic iron tholeiitic basalt.					
		70.75 5 cm band of jasper-magnetite iron formation. Moderately magnetic, banded at 45° to the C.A.					

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-02

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		70.63 to 72.10 3% quartz veining, minor magnetite in veins, trace pyrite. Minor pyrite in jasper IF at 70.75 meters.					
		81.08 to 81.66 20 cm quartz vein with 25% disseminated magnetite, 1% pyrite.					
		89.80 20 cm of weak shearing at 60° to the C.A.					
		Further down the section, notably past 110 meters, the rock becomes lighter green with a greyish tinge, and is slightly harder, reflecting a gradation towards more intermediate composition.					
		132.69 to 147.00 Zone of weak shearing and white quartz veining. Weak sericite development. Trace pyrite. Weak foliation at 65° to the C.A.					
		140.55 to 141.40 15% white quartz veining in weak shear, chloritic wallrock, trace pyrite.					
		146.35 to 147.00 25 cm quartz vein with chloritic inclusions and wallrock. Trace pyrite in vein.					
150.17	176.85	<b>INTERBEDDED ARGILLITE, INTERMEDIATE TUFF, AND JASPER IRON FORMATION</b>	20260	150.17	151.75	1.58	0
			20261	156.28	157.07	0.79	7
			20262	165.05	166.17	1.12	0
		Complex section of interbedded fine-grained, foliated and weakly sericitic argillite, fine grained to medium grained greywacke, and very hard jasper iron formation. For the most part, the rocks are unaltered and undeformed. Exceptions to this are the occasional thin argillaceous bed, which may exhibit strong foliation and weak sericite development. Locally the jasper iron formation may be brecciated and fractured, and cut by late quartz veins. Overall, sulphide mineralization is trace, with local sections of jasper partially replaced by up to 2% cubic pyrite.	20263	170.75	171.55	0.80	0
			20264	171.55	172.50	0.95	0
		150.17 to 151.75 Weakly sericitic argillite interbedded with fractured and quartz veined grey-green chert. 5% white quartz veining in cherty beds. 30% white irregular quartz veining with sericitic inclusions in the last 50 cm. Trace					



TOTAL ENER GOLD CORPORATION

HOLE NO: 242-04

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		pyrite.					
	150.17 to 151.75	Interbedded quartz veined grey-green chert and sericitic argillite. Trace pyrite.					
	151.75 to 156.28	Predominantly interbedded argillite and fine grained greywacke. Bedding contacts indistinct, but a weak foliation is oriented at 55° to the C.A.					
	156.28 to 157.07	Brecciated and quartz veined jasper iron formation. 15% white irregular quartz veins, at various angles to the C.A.					
	156.28 to 157.07	Brecciated jasper IF. Trace pyrite. 15% quartz veinlets.					
	157.07 to 162.50	Intermediate tuff. 10% mafic rock fragments, massive, unaltered.					
	162.50 to 163.87	Thinly bedded grey-green chert. Top 20 cm quartz veined and brecciated.					
	163.87 to 165.05	Fine grained intermediate tuff, 10% mafic rock fragments, minor black quartz veinlets.					
	165.05 to 167.38	Interbedded jasper iron formation, grey-green chert. Locally brecciated and quartz veined - these sections may contain up to 2% pyrite. Jasper beds vary in width from a few mm to 10 cm and are oriented at 70° to the C.A. Local slumping to 30° to the C.A. 1% disseminated cubic pyrite in jasper beds.					
	165.05 to 166.17	Brecciated and quartz veined grey-green chert and minor JIF. 2% pyrite in fractures and as cubes within white quartz veins.					
	167.38 to 170.75	Greywacke. Fine grained, 10% rock fragments (chloritic), trace pyrite. Very minor quartz chlorite veining.					
	170.75 to 172.50	Interbedded grey-green chert and JIF. Weakly brecciated and quartz veined. Minor fracture-controlled pyrite.					

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TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-04

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		172.50 to 176.85 Minor crystal tuff, fine grained argillite, and greywacke. Not altered or quartz veined.					
176.85	190.95	<b>CHERT-JASPER IRON FORMATION WITH GRAPHITIC INTERBEDS</b>	20265	176.85	177.30	0.45	0
			20266	177.30	178.00	0.70	0
		Main iron formation unit. Description similar to previous units of chert-jasper, with the addition of graphitic beds up to 3 cm thick interlayered with the jasper and chert.	20267	178.00	178.50	0.50	0
			20268	178.50	179.00	0.50	0
			20269	179.00	179.50	0.50	14
			20270	179.50	180.00	0.50	0
			20271	180.00	180.50	0.50	0
		176.85 to 181.22 Predominantly interbedded chert and JIF. 60% jasper beds at 65° to the C.A. 40% grey-green chert. 10% fracturing filled with grey-green and white quartz veinlets. 1-2% pyrite in fractures and as individual cubes.	20272	180.50	181.22	0.72	0
			20273	181.22	182.00	0.78	0
			20274	182.00	182.50	0.50	0
			20275	182.50	183.00	0.50	0
			20276	183.00	183.50	0.50	0
			20277	183.50	184.00	0.50	0
			20278	184.00	184.50	0.50	0
		176.85 to 177.30 2-3% narrow quartz stringers with 1% cubic pyrite. A further 1% pyrite in grey-green chert. Specular hematite in C.A.-parallel quartz stringer.					
		177.30 to 178.00 70% brecciated jasper beds. Fractures filled with remobilized grey-green chert.					
		178.00 to 178.50 50:50 grey-green chert & jasper beds, at 65° to the C.A. 3% irregular grey quartz-filled fractures. Trace pyrite.					
		178.50 to 179.00 60% grey-green chert, 1% pyrite.					
		179.00 to 179.50 As above.					
		179.50 First appearance of dark grey to black argillaceous beds, 1-3 cm wide, which grade down the hole to graphitic argillite and eventually to almost 100% graphite.					
		179.50 to 180.00 40% argillite (weakly siliceous), 40% grey-green chert, 20% jasper. 5% C.A.-parallel quartz veining with 2-5% pyrite in veins.					
		180.00 to 180.50 60% grey-green chert, 40% argillite, no jasper. Trace pyrite.					

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-02

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		180.50 to 181.22 70% jasper, very minor fracturing and quartz veining.					
		181.22 to 184.50 Very little jasper in section. Composed predominantly of interbedded grey-green chert and graphite, locally strongly fractured and brecciated with 10% narrow (<1 cm) quartz veinlets.					
		181.22 to 182.00 5% fracturing, weak brecciation, trace pyrite.					
		182.00 to 182.50 25% fracturing, 10% quartz veining, 1-2% cubic pyrite. 5% graphitic interbeds, locally slumped subparallel to C.A. and remobilized.					
		182.50 to 183.00 Strongly fractured (50%) and brecciated, 20% quartz veining, traces of jasper (fragments, remobilized beds), trace pyrite.					
		183.00 to 183.50 As above, 30% quartz veining, 2% pyrite, usually at graphitic bed margins.					
		183.50-184.00 20% graphitic beds, sharp contacts at 55° to C.A.					
		184.00 to 184.50 As above.					
		184.50 to 190.95 Jasper beds reappear. Section less brecciated and fractured. Local slumping of chert, at 186 and 187.50 meters. Foliation weak at 60° to the C.A. 5% graphitic beds.					
190.95	197.05	<b>INTERBEDDED GREYWACKE, GREY-GREEN CHERT AND JASPER IRON FORMATION</b> Similar to section from 150.17 to 176.85 meters. Iron formation contains minor graphitic interbeds.	20279	192.13	193.56	1.43	0
			20280	195.19	195.87	0.68	0
			20281	196.20	197.05	0.85	0
		190.95 to 192.13 Massive fine grained greywacke. 2% mafic rock fragments.					
		192.13 to 193.56 40% jasper, 55% grey-green chert, 5% graphitic argillite, well bedded at 65° to the C.A. Minor pyrite in fractures.					

TOTAL ENERGY GOLD CORPORATION

HOLE NO: 242-02

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		192.13 to 193.56 Minor fractures, trace pyrite, local weak brecciation. 2 cm of semi-massive pyrite at end of section, at contact with underlying greywacke.					
		193.56 to 195.19 Greywacke, medium grained, massive.					
		195.19 to 195.87 Chert-jasper unit. 3 cm massive pyrite at top of section. Well bedded at 65° to the C.A. Minor fracturing, no brecciation.					
		195.19 to 195.87 Trace pyrite, except for the first 3 cm of massive pyrite.					
		195.87 to 197.05 Lower contact of chemical sediments section. Sharp contact with underlying clastic metasediments. 50% jasper/grey-green chert, 50% fine grained greywacke.					
		196.20 to 197.05 Jasper-chert, 5 cm at top of section contains 20% banded pyrite.					
197.05	227.00	<b>CLASTIC METASEDIMENTS: MEDIUM TO COARSE GREYWACKE</b> Thick sequence of fine to medium grained greywacke. Thickly bedded; individual beds well sorted. Clast types are: mafic rock fragments-10%, grey quartz-5%, feldspar-10%, white quartz-10%, jasper- < 1%. Not altered, very minor quartz veining.  Below 221 meters, the core takes on a weak foliation, oriented to 65° to the C.A. The sedimentary unit also becomes coarser grained down the hole, with some clast sizes approaching 0.4 cm.					
227.00	230.09	<b>MODERATELY SHEARED AND SERICITIC GREYWACKE</b> Increasing intensity of alteration and shearing down the hole. Numerous sericitic slips oriented at 65° to the C.A. Colour is banded lime green and light grey, the latter representing weakly silicified layers. Original clasts still visible throughout, indicating relatively low intensity of shearing and alteration.					

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-04

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
230.09	236.50	<b>MIXED SEQUENCE OF CHEMICAL AND CLASTIC METASEDIMENTS</b>	20282	230.09	230.89	0.80	0
		Interbedded chemical metasediments - chert, weak jasper iron formation, and fine grained clastic metasediments - greywacke. The chemical metasediments are siliceous, fractured and locally brecciated. Fractures are filled with white and grey quartz, locally pyrite-bearing. The clastic metasediments are weakly foliated at 70° to the C.A. and may be weakly sericitic.	20283	230.89	231.75	0.86	0
			20284	234.60	234.98	0.38	0
			20285	234.98	236.50	1.52	0
		230.09 to 231.75 Mixed sequence of brecciated chert and jasper iron formation. Jasper brecciated. 102% disseminated and cubic pyrite.					
		230.09 to 230.89 Brecciated grey chert. 25% grey fractures. 1-2% cubic pyrite.					
		230.89 to 231.75 Minor jasper iron formation. 5% grey quartz veinlets parallel to C.A. with trace pyrite.					
		231.75 to 234.60 Weakly sericitic and foliated (at 70° to the C.A.) greywacke. Narrow sericitic slips.					
		234.60 to 236.50 Weakly sericitic and foliated chert and fine grained clastic metasediments.					
		234.60 to 234.98 Jasper IF, 2-3% disseminated pyrite, 5% fracture-filling quartz stringers. Bedding well preserved at 85° to the C.A.					
		234.98 to 236.50 Soft, fine grained impure quartz clast-bearing clastic metasediment. A few strong sericitic slips at 85° to the C.A. Colour is grey with a slight greenish tint.					
236.50	244.14	<b>INTERBEDDED ARGILLITE AND FINE CLASTIC METASEDIMENTS</b>					
		Moderately to strongly sericitized and deformed fine grained sedimentary sequence. Strongly foliated at 80° to the C.A. Trace pyrite. 2% foliation-parallel white quartz veining.					
244.14	246.69	<b>FRACTURED AND BRECCIATED CHERT</b>	20287	245.10	245.50	0.40	0
		Locally well bedded grey-green chert, brecciated and quartz veined. 2% disseminated cubic pyrite in brecciated chert and grey silicified zones. 5% white quartz veins with	20288	245.50	246.00	0.50	0
			20289	246.00	246.69	0.69	0

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-02

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		ankeritic margins, generally subparallel to the C.A. 15% grey quartz stockworks.					
		244.14 to 245.10 Moderate to strong brecciation, 5% white quartz veining, 10% grey quartz stockworks, 2 % disseminated pyrite.					
		245.10 to 245.50 As above, 50% grey quartz stockworks, 10% white quartz veining.					
		245.50 to 246.00 As above.					
		246.00 to 246.69 Less brecciation and quartz veining, 1% pyrite, bedding at 80° to the C.A.					
246.69	277.17	<b>CLASTIC METASEDIMENTS</b>	20290	261.10	262.10	1.00	0
		Medium grey, light greenish tinge. 20% felsic rock fragments, 2-3% blue quartz eyes set in a fine-grained quartzo-feldspathic and weakly sericitic matrix.. Bedding contacts obscure. Weakly foliated at 80° to the C.A. Local weak sericitization accompanying grey quartz ankerite veins, up to 5 cm wide, scattered irregularly throughout the section.	20291	262.10	263.67	1.57	0
			20292	263.31	264.38	1.07	0
		261.10 to 266.50 Increased intensity of sericite alteration and deformation. Local strong 1 cm sericitic shears. 10% dark grey quartz ankerite veining over 1 meter intervals. Trace pyrite. From 261.10-262.10 meters a brown massive mineral occurs in bands oriented at 80° to the C.A. Secondary growths of actinolite/tremolite occur within these bands (ankerite-sericite?).					
		261.10 to 262.10 Trace pyrite. Brown banding hosting 10% tremolite/actinolite.					
		262.10 to 264.38 Moderate to strongly altered fine-grained sediments hosting 15% dark grey quartz ankerite veining.					
		262.10 to 263.67 25% dark grey quartz ankerite veining in a quartz sericite schist. Strong schistosity at 80° to the C.A. Trace-1% cubic pyrite locally.					
		263.31 to 264.38 Intense sericite alteration hosting 5% white quartz veining and 15% grey brecciated pervasive silicified sections. Trace pyrite.					

TOTAL ENERGY GOLD CORPORATION

HOLE NO: 242-02

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		264.38 to 266.50 <b>Intense sericitic shear zone.</b> 25 cm of sericitic fault gouge centered at 264.80 meters.					
		Below 266.50 meters, the rock remains a fine grained clastic metasediment, pervasively sericitic (moderate intensity). Colour varies from light greenish grey to lime green in the thinly bedded sections. Foliation parallel to bedding at 70° to the C.A. Occasional 1 cm dark grey quartz ankerite veinlet parallel to foliation.					
277.17	286.69	<b>SHEARED GRAPHITIC AND SERICITIC ARGILLITE</b>	20293	279.10	280.25	1.15	0
			20294	283.54	284.50	0.96	0
			20295	284.50	285.50	1.00	0
		Sericitic to graphitic shear zone. Host may have been originally a graphitic argillite - now difficult to tell if graphite is hydrothermal in origin. Very fissile, fault gouge over 1-3 cm. 5% grey quartz ankerite veining, 3-5% pyrite, as narrow foliation parallel bands and in irregular fractures.					
		277.70 to 277.80 <b>Sericitic shear zone.</b> 25 cm of strong sericitic fault gouge, trace pyrite, 5% grey quartz ankerite veining.					
		279.10 to 280.25 <b>Weakly graphitic shear.</b> 25% grey-white quartz ankerite veining, 20% grey quartz veining, deformed subparallel to the C.A. 5% pyrite in latter. A few strongly sericitic slips.					
		283.54 to 286.69 <b>Main graphite-sericite shear zone.</b> Consists of alternating black (graphitic) greenish (sericitic) and grey to grey-black (quartz veins, pervasive silicification). 5% very fine pyrite in quartz sericite masses oriented parallel to foliation (5% of section). Grey-white quartz veining is irregular and barren of pyrite. Black graphitic sections vary from 1 cm to 10 cm wide and host 102% disseminated pyrite. Overall, the section contains 2-3% pyrite.					
		283.54 to 284.50 As above, 10% grey quartz veining. Locally 2 cm of graphitic fault gouge.					
		284.50 to 285.50 As above, 5% quartz-sericite-pyrite bands.					

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-02

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		286.69 to 288.34 Quartz sericite schist. Very well banded at 75° to the C.A. Trace pyrite.					
		286.69 to 288.34 As above.					
		285.50 to 286.69 As above.					
286.69	293.84	<b>FINE-GRAINED CLASTIC METASEDIMENTS</b>	20296	286.69	288.34	1.65	0
		Weakly sericitic, moderately foliated at 75° degrees to the C.A.	20297	285.50	286.69	1.19	7
			20298	292.84	293.84	1.00	0
		292.84 to 293.84 Weak graphitic shear zone. Minor quartz veining, local narrow sericitic slips.					
293.84	324.93	<b>FELSIC TUFF OR QUARTZ FELDSPATHIC METASEDIMENT</b>					
		A matrix of fine-grained sericite and quartz supports 25% clasts consisting of 75% quartz-feldspar aggregates (felsic volcanic?) and 25% blue quartz. All clasts are striated and elongated parallel to foliation, which is moderate at 80° to the C.A. Trace pyrite, minor dark grey quartz ankerite veining, barren of pyrite.					
324.93	340.56	<b>INTERBEDDED CHERT, GRAPHITE AND FINE-GRAINED ARGILLITE</b>	20299	326.20	326.95	0.75	0
		Upper contact gradational over 50 cm, strongly sheared and sericitic. Lower contact also gradational and strongly sericitic over 1.5 meters. Unit consists of interbedded fine-grained argillite (grey to black, weakly silicified), chert (dark grey, locally slumped, minor brecciation) and graphite (1-3 cm beds and thin seams parallel to bedding within larger chert units). Core angles of bedding are 80°. Unit is hard and shows little sign of alteration, except at the contacts, where the wallrock is strongly sericitic and sheared. 1% late white quartz veining parallel to bedding. Little deformation and crackle fracturing. Pyrite occurs as masses within graphitic beds and as cubes disseminated throughout the chert units. Total pyrite content is < 1%. Locally it may be remobilized along narrow irregular fractures with graphite or argillite within the cherty units.	20300	329.05	330.25	1.20	0
			20301	335.69	336.50	0.81	0
			20302	336.50	337.40	0.90	7



TOTAL ENER GOLD CORPORATION

HOLE NO: 242-02

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		324.93 to 326.20 Interbedded very sericitic and cherty beds. Chert becoming dominant down the hole. 2 cm <b>fault gouge</b> at 325 m, 1 cm <b>fault gouge</b> at 325.20 meters. 1% pyrite.					
		326.20 to 326.95 5% white quartz veining, 2% pyrite in discontinuous lenses wedging out parallel to the foliation and bedding.					
		326.20 to 326.95 As above.					
		A few specks of chalcopyrite occur near intersections of graphitic fractures within the dark grey cherty units.					
		329.05 to 330.25 As above, chalcopyrite in grey chert cut by 10% irregular graphitic fractures, strongly crenulated subparallel to the C.A.					
		335.69 to 337.40 Slight increase in pyrite mineralization and fracturing. 5% white quartz veining. 1-2% pyrite in fractures and in thin beds within the cherty units.					
		335.69 to 336.50 Slumping of chert/graphite beds, 5% white quartz veining at 25° to the C.A. 1% pyrite with graphite in narrow seams parallel to foliation.					
		336.50 to 337.40 25% white quartz veining, no pyrite. Also, a 20 cm mass of quartz and ankerite, grey colour, trace disseminated pyrite.					
		337.40 to 340.56 Transition between chert-graphite and underlying fine-grained clastic metasediment. Moderately to locally strongly sericitic over 2-3 cm. 1% pyrite in 1-2 cm bands of quartz-sericite.					
340.56	367.63	<b>FINE-GRAINED CLASTIC METASEDIMENT</b> Thickly bedded, grey with a light green tinge, well sorted. Clasts are mainly subrounded to rounded feldspar and minor translucent quartz. Matrix is fine-grained, quartzo-feldspathic, with a strong sericitic component. Minor cherty interbeds with 1% pyrite. Weakly foliated at 75-80° to the C.A.	20303	364.20	365.13	0.93	0
		360 to 361.53 Weak shearing minor fault gouge over 102 cm, minor quartz veining, no					

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-02

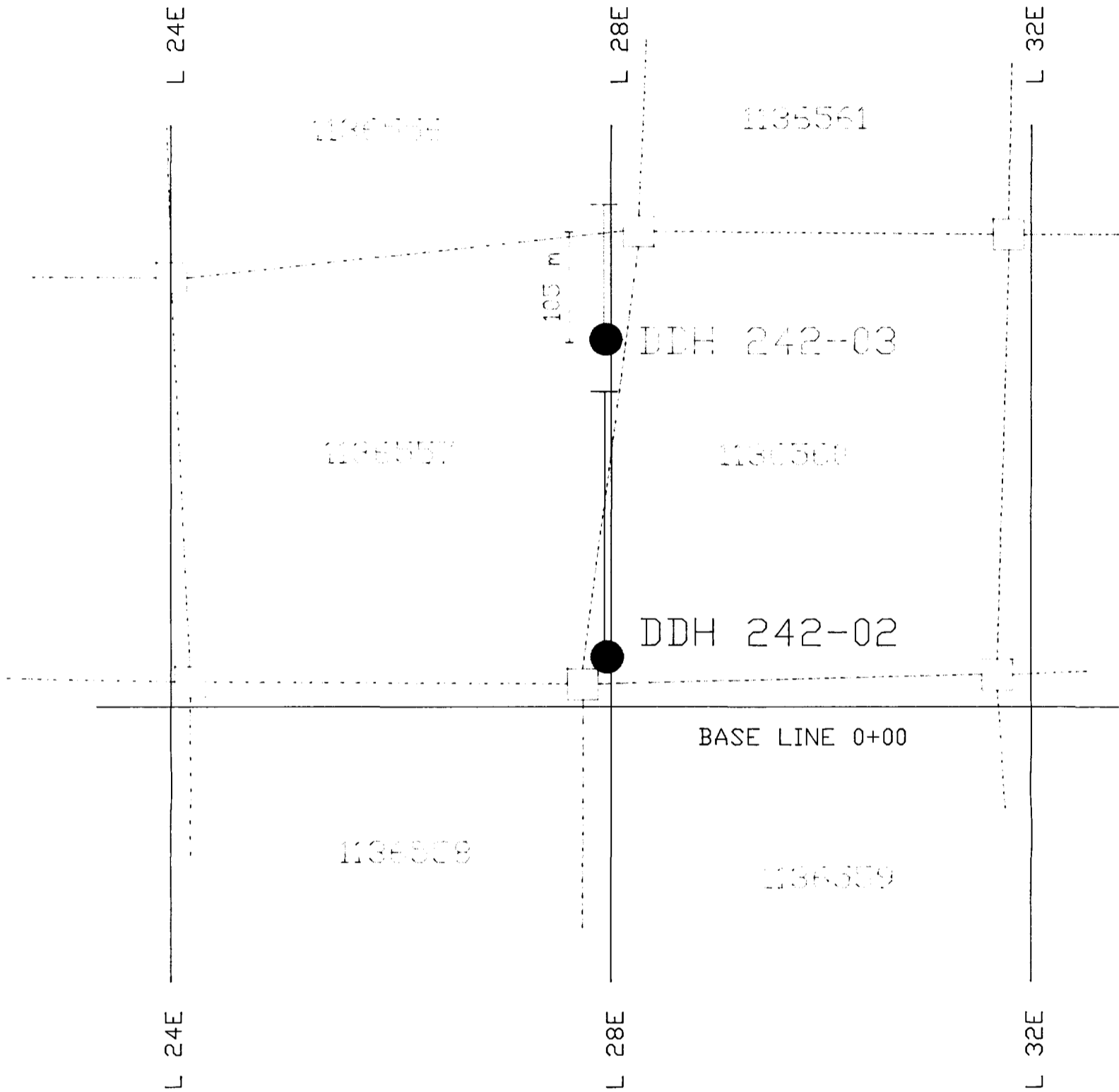
Page No: 13 of 13

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		pyrite. From 360-361.5 the unit is coarser-grained, with clasts up to 5 mm of similar composition to the previous description.					
		364.20 to 365.13 Minor cherty interbeds with 2-3% pyrite over 10 cm within chert. Finer grained beds very sericitic.					
		364.20 to 365.13 As above.					
		365.13 to 367.00 Interbedded chert and sericitic mudstone. Foliation parallel to bedding at 70-80° to the C.A.					
		367.00 to 367.63 Thinly bedded chert, mudstone and fine grained arenite. Not altered.					
367.63		<b>END OF HOLE</b>					

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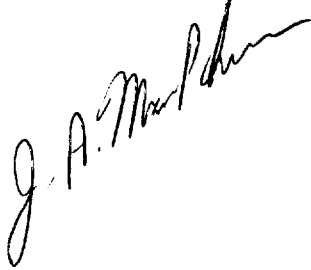




<b>TOTAL ENERGOLD CORPORATION</b>			
<b>ST. LAURENT</b>			
<b>LOCATION MAP</b>			
<b>DDH 242-03</b>			
Drawn: J.M.P.	Checked: J.M.P.	Scale: 1:5000	Drawing: SL3-LOC
Date: March, 1991	Revised: March, 1991	Province: Ontario	NTS: 32 E/5

TOTAL ENERGO GOLD CORPORATION

DIAMOND DRILL RECORD

Co-ords: 325N                      Section: L2800E                      HOLE NO: 242-03  
Bearing: 360°                      Core Size: BQ                      Property: St. Laurent  
Dip: -45°                      Grid System:                      Location: St. Laurent Twp.  
Elevation:                      Claim: 1136557, 1136560  
Length: 193.90m                      Date Started: Feb. 22, 1991  
Measurement: metres                      Date Completed: Feb. 24, 1991  
Comments:                                            Logged By: Joe MacPherson

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
18.29		-45°	121.95		-38°			
76.22		-43°	187.80		-28°			

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LOG SUMMARY

FROM	TO	LITHOLOGY
0.00	17.07	OVERBURDEN
17.07	57.60	FELSIC TUFFS, MINOR FLOWS
57.60	117.65	INTERMEDIATE VOLCANIC FLOWS
117.65	196.90	MASSIVE SERICITIC FELSIC VOLCANIC FLOWS
196.90	199.95	SILICEOUS INTERMEDIATE TUFF, ASH TUFF
	199.95	END OF HOLE

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TOTAL ENER GOLD CORPORATION

HOLE NO: 242-03

Page No: 2 of 3

FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
0.00	17.07	<b>OVERBURDEN</b> Sand, clay, gravel, boulders near bedrock.					
17.07	57.60	<b>FELSIC TUFFS, MINOR FLOWS</b> Fine-grained, well banded/foliated at 55° to the C.A. Sheared and weakly sericitic to 28.42 meters. Locally broken, faulted, with minor white quartz veining accompanying the faulting. Faults with minor gouge at: 23.00, 24.75, 28.35, 31.90, 45.30, 50.30, meters. Faults less than 15 cm wide.	20721 20722 20723	26.90 44.12 45.00	28.42 45.20 46.20	1.52 1.08 1.20	0 0 0
		26.90 to 28.42 Strongly sheared and sericitic zone, minor graphitic slips in grey quartz from 26.90-27.25 meters.					
		44.12 to 45.20 Quartz-graphite <b>Fault Zone and Veining</b> . 30% white quartz veining intruding along numerous graphitic slips. Tr pyrite, local weak silicification.					
		44.12 to 45.00 20% white quartz veining. Numerous graphitic slips along vein contacts and within veins.					
		45.00 to 46.20 As above, 40% white quartz veining, minor silicification.					
		Unit is weakly sericitic from 38.53-50.60 meters. Local strong foliation at 55-60° to the C.A. Below 50.60 meters, a few sericitic slips are present. Core remains weakly silicified to 53.75 meters. Banding/foliation becomes fainter towards the lower contact.					
57.60	117.65	<b>INTERMEDIATE VOLCANIC FLOWS</b> Massive, medium grey, hard. Sausseritized feldspars set in a fine-grained matrix of quartz, feldspar and minor sericite. Individual flows up to 3 meters thick.					
		91.00 30 cm quartz vein, broken, no pyrite.					
		87.17 to 88.00 Weak shearing at 60° to the C.A. Minor sericite.					
		Below 84.00 meters, feldspar porphyritic flows are present interbedded with the massive flows. Matrix of the flows becomes slightly more mafic (fine-grained chlorite) and darker					

TOTAL ENERGO GOLD CORPORATION

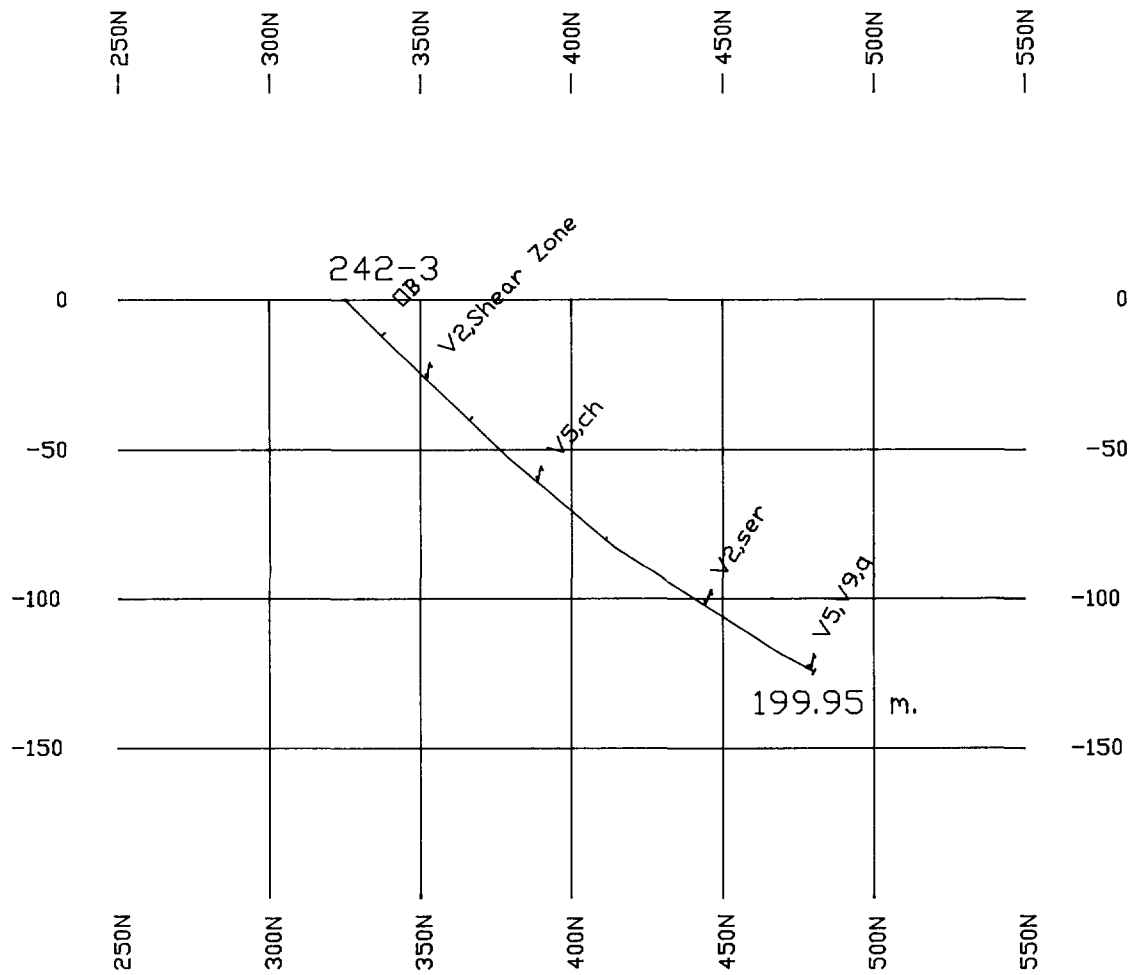
HOLE NO: 242-03

Page No: 3 of 3

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		grey from 99.00-102.50 meters. Gradational below this point to more felsic matrix. Occasional 1 cm pyrite cube.					
		Lower contact is sheared and gradational with felsic volcanics. Strongly foliated at 70° over 2 meters, minor graphitic slips, trace pyrite.					
117.65	196.90	<b>MASSIVE SERICITIC FELSIC VOLCANIC FLOWS</b> Quartz eye rhyolite, massive, strongly sericitic locally, hard, light greenish green to lime green. 5% grey quartz phenocrysts, 1-2% late white quartz veinlets at 55-70° to the C.A.					
		142.80 to 143.10 Weak jasper interflow siliceous sediments, banded at 80° to the C.A.					
		151.00 to 153.00 Strongly silicified and sericitic, crackle fractured, translucent green, hard, trace pyrite.					
		165.00 to 166.40 Siliceous interflow, white, tr py, massive, weak sericitization.					
		180.20 to 182.66 Siliceous interflow, as above.					
		After 187.40 meters, the strong sericite alteration fades out, and the rock is a medium grey colour, massive, siliceous, with tr py. 10% interflow tuff.					
196.90	199.95	<b>SILICEOUS INTERMEDIATE TUFF, ASH TUFF</b> Thinly bedded ash tuff to quartz crystal tuff, set in a fine grained weakly chloritic matrix. Trace pyrite. <5% quartz phenos in crystal tuff. Bedding at 70° to the C.A.					
199.95		<b>END OF HOLE</b>					

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**LEGEND**

**VOLCANICS**

- V2 Felsic
- V4 Intermediate
- V7 Basalt
- V8 Tuff
- V10 Agglomerate

**SEDIMENTS**

- S3 Greywacke
- S4 Argillite

**INTRUSIVES**

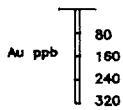
- 1R Felsic
- Db Diabase

- ob overburden
- ft fault
- bx breccia
- p pillowed
- qv quartz vein

- gf graphite
- ser sericite
- fc fuchsite
- cb carbonatized
- sl silicified
- sl slightly
- olt altered

- po pyrrhotite
- py pyrite
- ospy arsenopyrite
- mt magnetite
- Fe iron tholeiite

IP Induced Polarization Anomaly



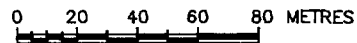
**TOTAL ENERGOLD CORPORATION**

**ST. LAURENT**

**DDH 242-3**  
**Section 28+00 E**  
**Facing West**

*JMP*

Drawn: J.M.P.	Checked: JMP	Scale: 1:2500	Drawing: SL-3
Date: March, 1991	Revised: March, 1991	Province: Ontario	NTS: 32 E/5





L 16E

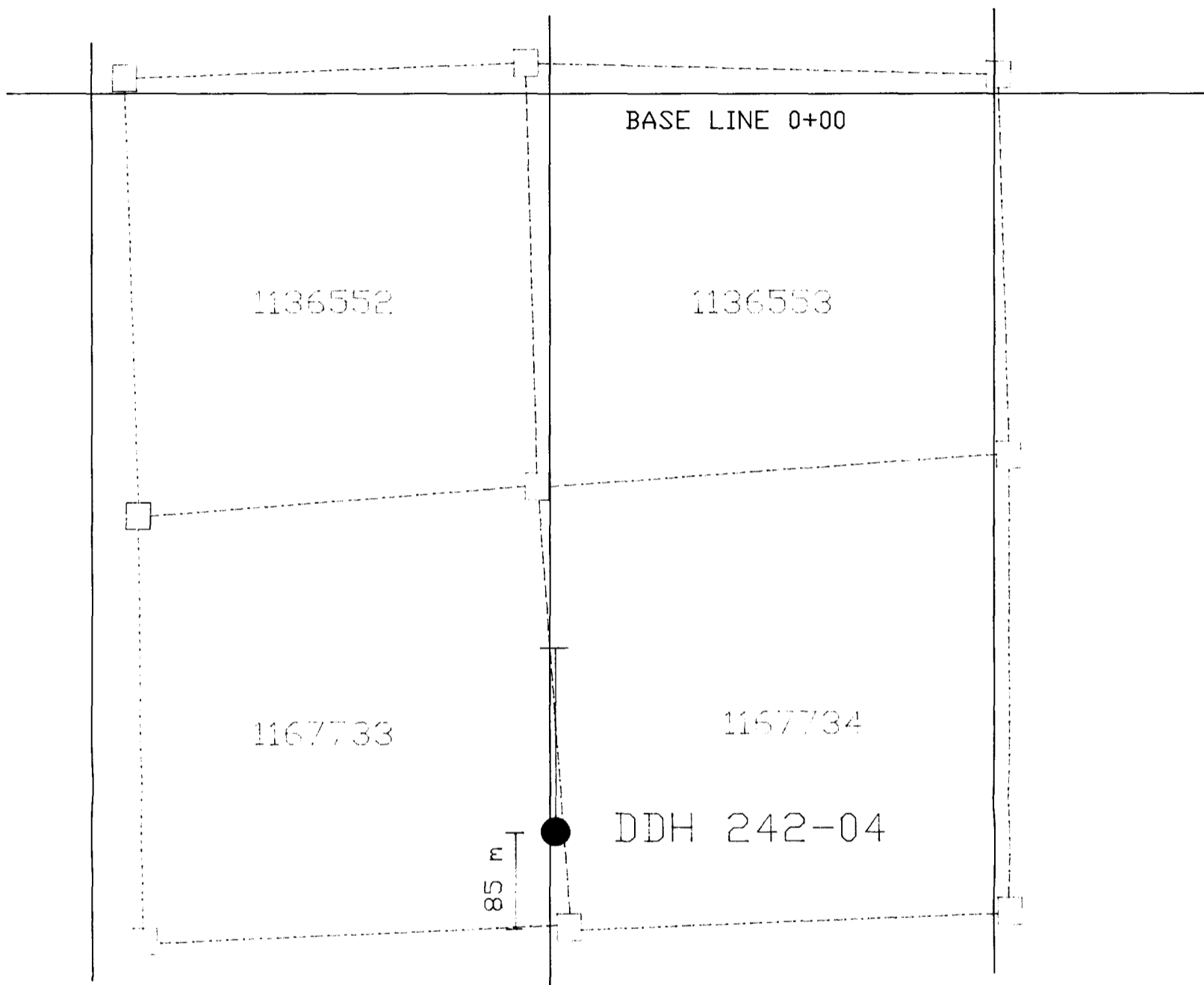
L 20E

L 24E

L 16E

L 20E

L 24E



BASE LINE 0+00

1136552

1136553

1167733

1167734

DDH 242-04

85 m

TOTAL ENERGOLD CORPORATION

ST. LAURENT

LOCATION MAP

DDH 242-04

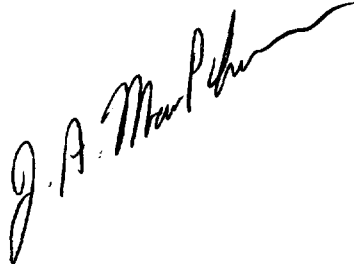
*JMP*

Drawn: J.M.P.	Checked: JMP	Scale: 1:5000	Drawing: SL4-LOC
Date: March, 1991	Revised: March, 1991	Province: Ontario	NTS: 32 E/5

0 50 100 150 200 METRES

TOTAL ENERGOLD CORPORATION

DIAMOND DRILL RECORD

Co-ords: 675S Section: L2000E HOLE NO: 242-04  
Bearing: 360° Core Size: BQ Property: St. Laurent  
Dip: -45° Grid System: Location: St. Laurent Twp.  
Elevation: Claim: 1167733, 1167734  
Length: 242.62m Date Started: Feb. 13, 1991  
Measurement: metres Date Completed: Feb. 23, 1991  
Comments:  Logged By: Joe MacPherson

Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
64.93		-45°	121.95		-44°			
182.92		-41°						

LOG SUMMARY

FROM	TO	LITHOLOGY
0.00	64.89	OVERBURDEN
64.89	99.47	CLASTIC METASEDIMENTS
99.47	105.46	BRECCIATED, FRACTURED, QUARTZ VEINED CHERT AND ARGILLITE
105.46	154.82	FINE-GRAINED CLASTIC METASEDIMENTS
154.82	168.00	BRECCIATED AND QUARTZ VEINED CHERT, MINOR CHERT-GRAPHITE
168.00	184.82	CLASTIC METASEDIMENTS
184.82	201.67	CHEMICAL METASEDIMENTS: CHERT, ARGILLITE
201.67	218.52	GREYWACKE
218.52	225.50	CHEMICAL METASEDIMENTS: CHERT, ARGILLITE
225.50	233.48	GREYWACKE
233.48	242.62	INTERMEDIATE TO MAFIC METAVOLCANICS
	242.62	END OF HOLE

TOTAL ENERGY GOLD CORPORATION

HOLE NO: 242-04

Page No: 2 of 10

FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
0.00	64.89	<b>OVERBURDEN</b>					
64.89	99.47	<b>CLASTIC METASEDIMENTS</b> Fine grained to locally medium grained, well foliated at 45 to 50° to the C.A. Highly weathered to 69.60 meters. Medium greenish grey. 10% feldspathic clasts, ranging in size from 2 mm to 5 mm, well rounded, in a matrix of fine-grained quartzo-feldspathic material and chlorite. After 80 meters, the rock becomes weakly sericitic, corresponding with an increase in foliation intensity. Trace pyrite, <1% pinkish grey quartz stringers (< 1cm wide) oriented parallel to foliation.  76.60 10cm shear zone, sericitic, fault gouge.  Unconsolidated fault gouge also at 94.65-94.70, 98.15-98.25 meters. After these faults, the foliation is intense at 45° to the C.A.  After 98.35 meters, intensity of sericite alteration increases. Numerous sericitic slips and sericitic seams along bedding contacts.  Sericitic shear zone from 99.10-99.47 meters. Very fissile, strongly sheared at 35° to the C.A. Fault gouge.					
99.47	105.46	<b>BRECCIATED, FRACTURED, QUARTZ VEINED CHERT AND ARGILLITE</b> Interbedded chert and argillite, moderately to locally strongly brecciated and fractured, and cut by white and grey quartz veins. Degree of deformation locally intense enough to obliterate original bedding, but where visible, bedding is oriented at 50-60° to the C.A.  The less deformed rock consists of alternating dark grey, light greenish grey chert and medium to dark greyish green fine grained argillite.  Section hosts about 5% white quartz veining with sericitic and chloritic fractures and margins. Grey quartz veinlets occupy an irregular crackle fracture which is locally intense over 5-30 cm.	20667 20668 20669 20670 20671 20672 20673	99.47 100.34 101.63 102.31 103.05 103.80 105.03 105.46	100.34 101.63 102.31 103.05 103.80 105.03 105.46	0.87 1.29 0.68 0.74 0.75 1.23 0.43	14 0 24 0 21 0 0

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-04

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		Pyrite occurs as isolated cubes (rare), as fine disseminations in brecciated sections (1%), and as masses and irregular bands within all rock types. Pyritic banding parallel to bedding is most common.					
		99.47 to 100.34 Brecciated, quartz veined chert. 40% thin grey irregular quartz stringers, 5% white quartz veining, trace pyrite.					
		100.34 to 101.63 10% grey quartz stringers, 10% white quartz veining. Pyrite occurs as grey cloudy masses along low-angle grey quartz vein margins, and as well formed cubes within the less deformed parts of the chert, and semi-massive along very thin seams within the argillite.					
		101.63-102.31 Mainly brecciated and quartz veined chert. 10% white quartz veining. 1% pyrite in narrow seams parallel to bedding.					
		102.31 to 103.05 Predominantly well bedded chert, 5% grey quartz-filled crackle fracture, trace pyrite.					
		103.05 to 103.80 Strongly brecciated and fractured. 1% pyrite.					
		103.80 to 105.03 20% lost core. 10 cm strong fault zone with unconsolidated fault gouge. Hangingwall of fault is very sericitic and contains 2-3% disseminated pyrite and in masses with grey quartz and sericite.					
		105.03 to 105.46 Quartz veined and moderately brecciated lower contact to the chert/argillite section. 3-5% pyrite as convoluted masses within the argillaceous beds.					
105.46	154.82	<b>FINE-GRAINED CLASTIC METASEDIMENTS</b>	20674	115.92	117.10	1.18	0
			20675	118.42	119.27	0.85	0
		As per earlier description: intensity of pervasive sericite alteration decreasing away from the contact with the brecciated chert/argillite unit. Numerous sericitic slips oriented at 55° to the C.A. Below 144.00 meters, the intensity of the sericite alteration increases again, as the sedimentary unit	20676	128.57	129.56	0.99	17
			20677	129.56	130.25	0.69	0
			20678	130.25	131.00	0.75	0
			20679	131.00	132.35	1.35	10
			20680	132.35	133.00	0.65	0
			20681	133.00	133.68	0.68	0
			20682	138.25	139.23	0.98	0

TOTAL ENER GOLD CORPORATION

HOLE NO: 242-04

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		becomes more fine-grained. Appearance of cloudy, small irregular masses of grey quartz, sericite and pyrite (<1% of rock) after 115.92 meters.	20683	140.00	141.20	1.20	0
			20684	141.20	142.06	0.86	0
			20685	142.06	143.00	0.94	0
			20686	147.90	148.20	0.30	0
		115.92 to 117.10 Moderately sericitic, well foliated at 55° to the C.A. <1% grey quartz-sericite-fine pyrite masses and discontinuous seams.					
		118.42 to 119.27 1% dark grey quartz stringers with 50% pyrite. Stringers are very thin (<2 mm), irregular, and make up <1% of section.					
		128.57 to 133.60 Increase in overall pyrite content to 1-2%. Pyrite occurs in thin irregular dark grey quartz stringers and masses randomly located throughout the section. Moderate sericite alteration, strong foliation at 55° to the C.A. Host appears to be a thinly bedded clastic metasediment.					
		128.57 to 129.56 Brecciated and bleached wallrock to a 15 cm low-angle quartz vein, at 128.90 meters. 5% pyrite as masses and fracture fillings, in breccia and vein.					
		129.56 to 130.25 Wisps and streaks of dark grey quartz-pyrite, 1% total pyrite.					
		130.25 to 131.00 As above, a 5 cm section of quartz-pyrite at 120.00 meters.					
		131.00 to 132.35 Becoming more sericitic: trace pyrite and quartz veining.					
		132.35 to 133.00 5% dark grey quartz-pyrite veining and masses up to 7 cm wide. 50% pyrite in these section. 3% pyrite overall.					
		133.00 to 133.68 2% dark grey quart-pyrite irregular wisps and fracture fillings.					
		Below 135 meters, the rock is a mixture of medium grained to fine grained variably sericitic metasediments. Fine grained beds are more sericitic. Occasional grey quartz-pyrite vein parallel to foliation, at 60° to the C.A. The core is also notable for the presence of 1-2% rounded black clasts - could be rhyolite					

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-04

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		or siliceous argillite.					
		138.25 to 139.23 1% dark grey quartz-pyrite banding and irregular masses.					
		140.00 to 141.20 2-3% dark grey quartz pyrite masses hosting 50% pyrite.					
		141.20 to 142.06 Strong shearing at 35° to the C.A., 50 cm medium grey quartz ankerite vein, broken, with numerous sericitic slips.					
		142.06 to 143.00 1-2% dark grey quartz-pyrite bands and irregular masses. These have individual extents of no more than 2-3 cm.					
		147.90 to 148.20 1% dark grey quartz banding parallel to foliation. Host is a fine to medium grained arenite.					
154.82	168.00	<b>BRECCIATED AND QUARTZ VEINED</b>	20687	154.82	156.00	1.18	0
		<b>CHERT, MINOR CHERT-GRAPHITE</b>	20688	156.00	157.00	1.00	0
		Strongly deformed and brecciated chert unit	20689	157.00	158.00	1.00	0
		with minor graphitic beds. 40% white quartz	20690	158.00	159.00	1.00	0
		veining in section from 154.82 to 160.33	20691	159.00	160.33	1.33	0
		meters. These veins consist of 75% quartz, 20%	20692	162.45	163.50	1.05	0
		yellow ankerite, and 5% sericitic slips and	20693	163.50	164.50	1.00	10
		cherty inclusions. More or less barren of pyrite,	20694	164.50	165.50	1.00	0
		except in the cherty inclusions, where 1-2%	20695	165.50	166.50	1.00	0
		cubic pyrite may be present. The veining is	20696	166.50	168.00	1.50	0
		present as an irregular stockworks cutting the					
		core at various angles. This vein set appears to					
		be late, and crosscuts an earlier set which is					
		grey, very narrow (< < 1 cm), and also cuts the					
		core at various angles.					
		160.33 to 162.45 60% medium brown mineral,					
		very soft, hosting chlorite porphyroblasts. The					
		chlorite has a well formed crystal habit and also					
		occurs as radiating aggregates. Very minor					
		quartz veining in this section.					
		154.82 to 156.00 40% white quartz-ankerite					
		veining, minor brecciation. 5% early dark grey					
		quartz veining. Trace pyrite.					
		156.00 to 157.00 75% white quartz ankerite					
		veining, trace pyrite.					

TOTAL ENER GOLD CORPORATION

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		157.00 to 158.00 50% white quartz ankerite veining, 1% cubic pyrite in cherty inclusions.					
		158.00 to 159.00 30% white quartz ankerite veining, silicified chert wallrock with 1% cubic pyrite.					
		159.00 to 160.33 75% white quartz ankerite veining, more ankerite in veins here (20%), trace pyrite in chert wallrock.					
		162.45 to 168.00 Chert, varying in colour from white to grey to greenish grey. Well bedded, average bedding thickness 1-2 cm, at an average of 60° to the C.A. Degrees of quartz veining and fracturing very low (<5% total). 1-2% pyrite in irregular fractures, seams parallel to bedding, and as isolated cubes.					
		162.45 to 163.50 Slumped chert. 2% pyrite along bedding contacts. Less than 5% fracturing.					
		163.50 to 164.50 As above.					
		164.50 to 165.50 As above. Pyrite remobilized along narrow graphitic (?) fractures. 1% white quartz veining.					
		165.50 to 166.50 As above. Trace chalcopyrite, minor jasper beds.					
		166.50 to 168.00 As above. Trace chalcopyrite, 1-2% remobilized fracture-controlled pyrite.					
168.00	184.82	<b>CLASTIC METASEDIMENTS</b> Weakly sericitic, becoming less so down the hole. Fine to medium grained. Clasts are predominantly quartzo-feldspathic, set in a fine grained quartz-feldspathic-sericite matrix. Foliation moderate at 60° to the C.A., decreasing in intensity down the hole. Trace pyrite. Last 20 cm weakly sericitic.					
184.82	200.67	<b>CHEMICAL METASEDIMENTS: CHERT, ARGILLITE</b> Thinly bedded chert, minor jasper, and siliceous argillite. Average bed thickness is 1 cm, average orientation to C.A. is 60°, and consists of alternating bands of white, light to dark	20697	184.82	186.00	1.18	0
			20698	186.00	187.00	1.00	0
			20699	187.00	188.00	1.00	0
			20700	188.00	189.00	1.00	0
			20701	189.00	190.00	1.00	0

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-04

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		grey, black, and greenish grey. All beds	20702	190.00	191.00	1.00	0
		moderately to locally strongly brecciated and	20703	191.00	192.00	1.00	0
		crackle fractured. Sequence hosts 5% white	20704	192.00	193.00	1.00	0
		irregular quartz veins and up to 20% dark grey	20705	193.00	194.00	1.00	0
		irregular thin grey quartz crackle fractures,	20706	194.00	195.00	1.00	0
		oriented at various angles to the C.A., but	20707	195.00	196.00	1.00	0
		often subparallel. Pyrite content is highly	20708	196.00	197.00	1.00	0
		variable from trace to semi-massive over 1-2	20709	197.00	198.00	1.00	0
		cm, usually associated with the argillaceous	20710	198.00	199.00	1.00	31
		beds. Occasional speck of chalcopyrite.	20711	199.00	200.00	1.00	0
			20712	200.00	201.67	1.67	0
		184.82 to 186.00 Well bedded, semi-massive pyrite over 1-2 cm, at 185.40 meters, associated with white quartz.					
		186.00 to 187.00 Grey-green chert primarily, weak crackle fracture, trace pyrite.					
		187.00 to 188.00 Strong brecciation and crackle fracture, 1% disseminated pyrite in brecciated chert sections. Minor brecciated jasper.					
		188.00 to 189.00 Moderate brecciation, 5% white quartz veining, trace pyrite.					
		189.00 to 190.00 As above, 40% white quartz veining, trace-1% disseminated pyrite in chert.					
		190.00 to 191.00 Strongly brecciated chert and slumped very soft sediment.					
		Latter is yellow-brown, with secondary growths of chlorite as radiating aggregates. May have been a chloritic bed, now completely recrystallized and altered.					
		191.00 to 192.00 Weakly brecciated chert, strong bedding at 70° to the C.A., locally slumped to 20° to the C.A.					
		192.00 to 193.00 As above.					
		193.00 to 194.00 Well bedded chert, 1% pyrite along bedding contacts.					
		194.00 to 195.00 Fine-grained greywacke, 10% brecciated chert.					



TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-04

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		195.00 to 196.00 Moderately to strongly brecciated and crackle-fractured chert. 15% dark grey foliation-parallel quartz veinlets.					
		196.00 to 197.00 Strongly brecciated chert, dark grey, 2% pyrite in brecciated chert fragments.					
		197.00 to 198.00 As above, degree of brecciation slightly less.					
		198.00 to 199.00 As above. Trace chalcopyrite.					
		199.00 to 200.00 Moderate brecciation. Bedding at 55° to the C.A. 1% disseminated pyrite. Trace chalcopyrite.					
		200.00 to 201.67 Well bedded chert, trace pyrite, 1-2% white quartz veining, minor grey quartz-filled crackle fracture.					
201.67	218.52	<b>GREYWACKE</b> Fine to medium grained, well bedded at 65° to the C.A., greenish grey. Clast types are: 10% mafic rock fragments, 5% sausseritized feldspars, set in a fine grained matrix of quartz, feldspar, chlorite and sericite. Matrix quite strongly altered.					
218.52	225.50	<b>CHEMICAL METASEDIMENTS: CHERT, ARGILLITE</b> Similar to previous section of chemical metasediments, except for the notable increase in pyrite content. Pyrite occurs as masses, fine disseminations and fracture-fillings within the strongly brecciated chert <u>and</u> later quartz veining.	20713	218.52	219.00	0.48	0
			20714	219.00	219.70	0.70	34
			20715	219.70	220.40	0.70	45
			20716	.	*		
			20717	221.10	222.00	0.90	82
			20718	222.00	222.50	0.50	72
		Pyritic section runs from 218.52-223.00. Average pyrite content for this section is 5%.					
		218.52 to 219.00 3-5% pyrite as fracture fillings and masses within increasingly brecciated chert.					
		219.00 to 219.70 3% pyrite, mainly as bands parallel to bedding. Moderately brecciated. 5% white quartz veining.					

\* LOST CORE

TOTAL ENERGY GOLD CORPORATION

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		219.70 to 220.40 Badly broken section, poor core recovery (60%). Sections of semi-massive pyrite over 5 cm, cut by white quartz veinlets and hosted by a grey siliceous gangue. Trace chalcopyrite as well.					
		220.40 to 221.10 Section of LOST CORE. 0% recovery.					
		221.10 to 222.00 Moderate to strong brecciation and grey quartz veining, 1-2% disseminated and fracture-controlled pyrite.					
		222.00 to 222.50 As above, 3% fracture-controlled pyrite.					
		222.50 to 223.30 Less brecciated, well bedded at 60° to the C.A. Semi-massive pyrite associated with dark grey chert. 15% jasper.					
		223.30 to 224.33 Well bedded, minor brecciation, 2-3% chloritic fractures, trace pyrite.					
		224.33 to 225.50 Grey-green chert, slumped subparallel to the C.A. 1% white quartz veining subparallel to the C.A.					
			20719	228.30	229.40	1.10	0
225.50	233.48	<b>GREYWACKE</b>	20720	231.47	233.05	1.58	0
		Moderately altered and strongly sheared at 55° to the C.A.					
		228.20 to 229.40 Moderately brecciated grey chert, 1% pyrite, minor chlorite fractures, 1% white quartz veining.					
		228.20 to 229.40 As above.					
		229.40 to 231.47 Well foliated clastic metasediment, fine-grained, foliation strong at 65° to the C.A. Local minor 1-3 cm faults.					
		231.47 to 233.05 Weakly brecciated and chloritic chert. Trace pyrite.					
		231.47 to 233.05 As above.					
		233.05 to 233.48 Lost core.					

TOTAL ENERGO GOLD CORPORATION

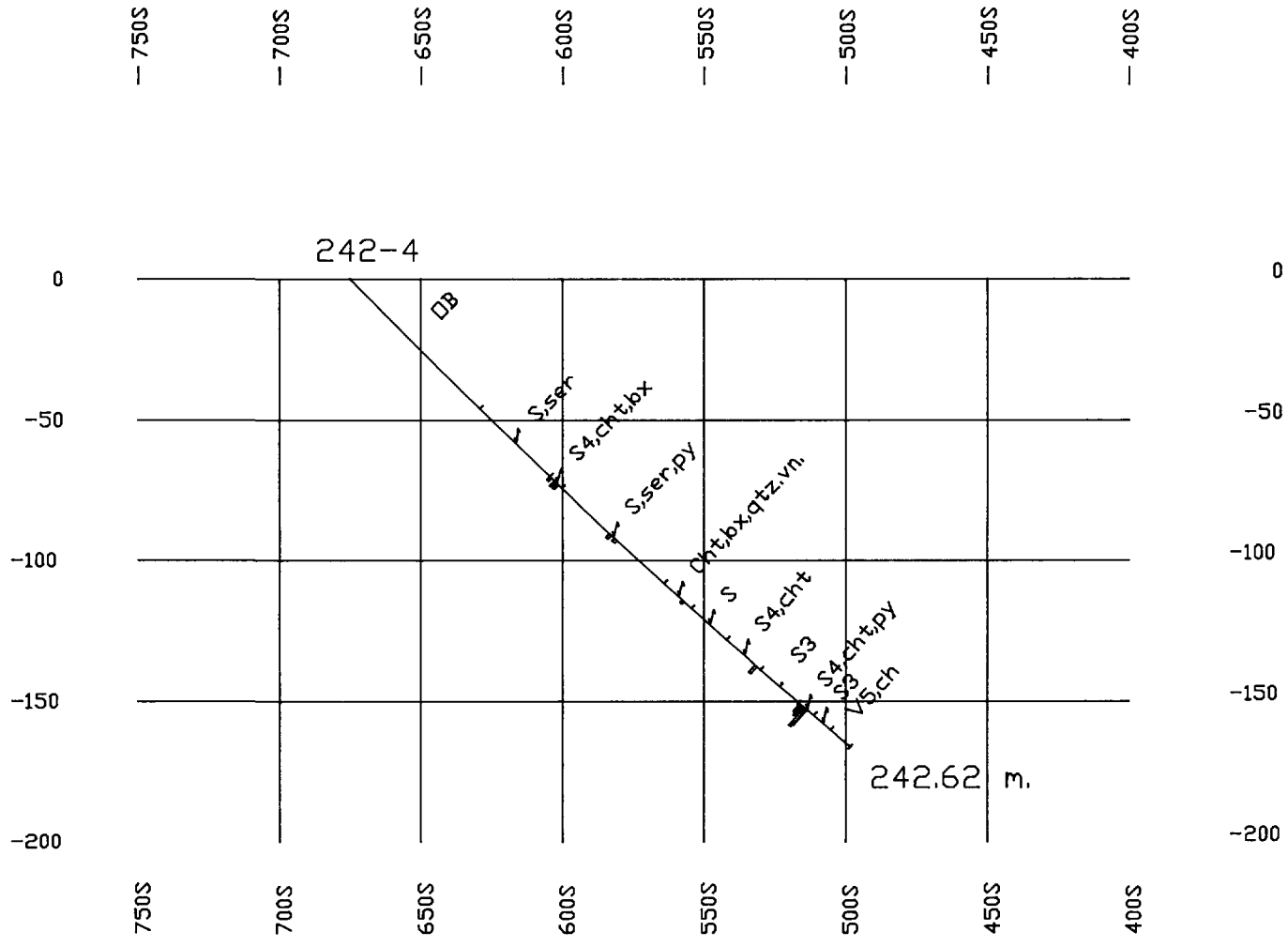
HOLE NO: 242-04

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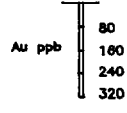
FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
233.48	242.62	<b>INTERMEDIATE TO MAFIC METAVOLCANICS</b> Massive, fine grained, dark greenish grey. 10 to locally 30% very fine chlorite crystal development in a n otherwise fine-grained grey- green chloritic matrix. Minor chert interflow. 1% quartz fracture fillings.					
242.62		<b>END OF HOLE</b>					

---



**LEGEND**

- |                   |                |                                 |
|-------------------|----------------|---------------------------------|
| <b>VOLCANICS</b>  |                |                                 |
| V2 Felsic         | ob overburden  | po pyrrhotite                   |
| V4 Intermediate   | ft fault       | py pyrite                       |
| V7 Basalt         | bx breccia     | oepy arsenopyrite               |
| V9 Tuff           | p pillowed     | mt magnetite                    |
| V10 Agglomerate   | qv quartz vein | Fe iron tholeiite               |
| <b>SEDIMENTS</b>  |                | IP Induced Polarization Anomaly |
| S3 Greyrock       | gf graphite    |                                 |
| S4 Argillite      | aer sericite   |                                 |
|                   | fc fuchsite    |                                 |
|                   | cb carbonated  |                                 |
| <b>INTRUSIVES</b> | sil silicified |                                 |
| 1R Felsic         | sl slightly    |                                 |
| Db Diabase        | alt altered    |                                 |



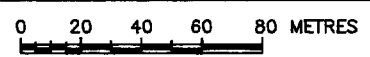
**TOTAL ENERGOLD CORPORATION**

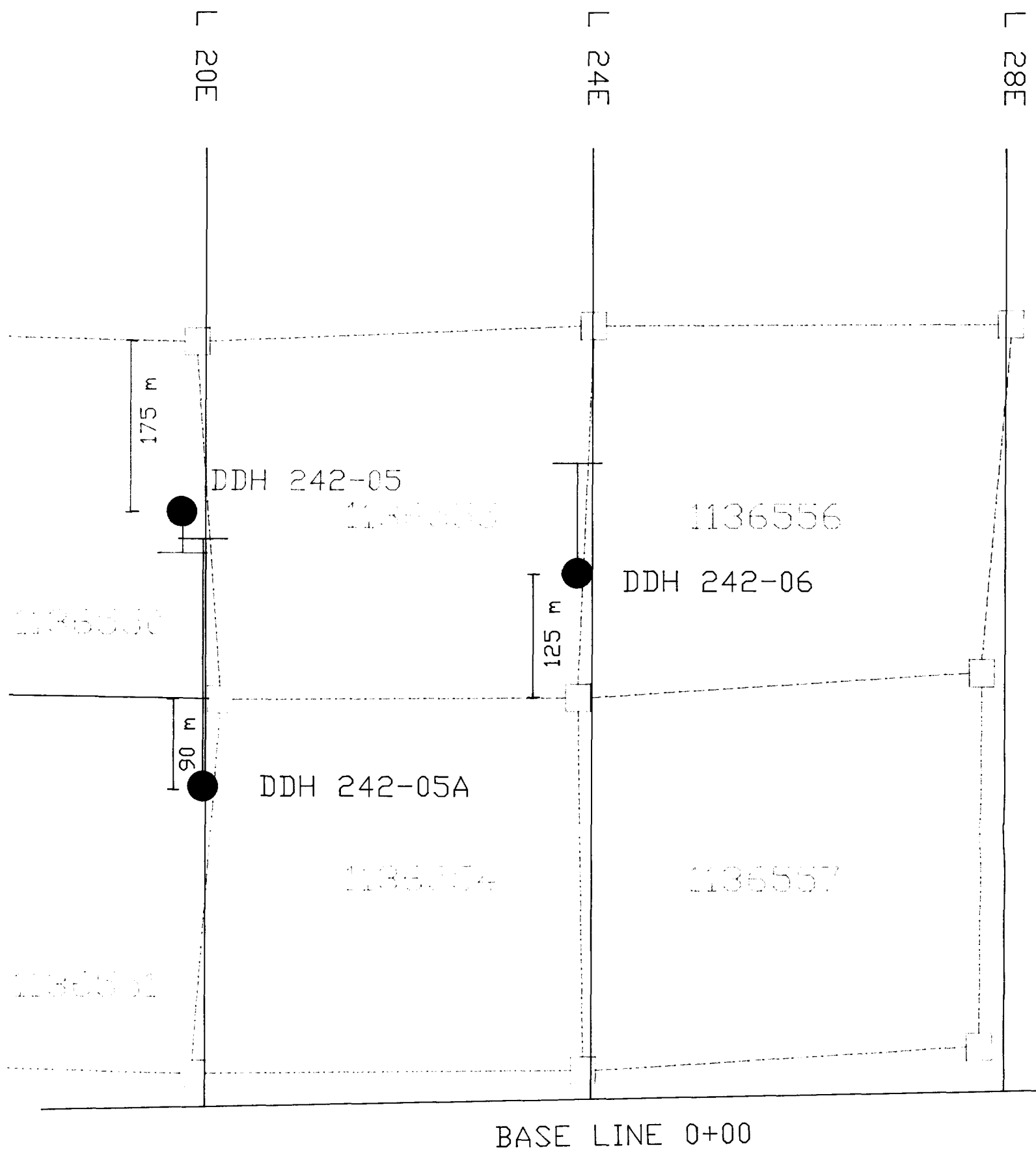
**ST. LAURENT**

**DDH 242-4  
Section 20+00 E  
Facing West**

*JMP*

Drawn: J.M.P.	Checked: JMP	Scale: 1:2500	Drawing: SL-4
Date: March, 1991	Revised: March, 1991	Province: Ontario	NTS: 32 E/5






<b>TOTAL ENERGOLD CORPORATION</b>			
<b>ST. LAURENT</b>			
<b>LOCATION MAP</b> <b>DDH 242-05</b>			
Drawn: J.M.P.	Checked: JMP	Scale: 1:8000	Drawing: SL5LOC
Date: March, 1991	Revised: March, 1991	Province: Ontario	NTS: 32 E/5
0 50 100 150 200 METRES 			

*JMP*

TOTAL ENERGOLD CORPORATION

DIAMOND DRILL RECORD

Co-ords: 600N Section: L2000E HOLE NO: 242-05  
Bearing: 180° Core Size: BQ Property: St. Laurent  
Dip: -45° Grid System: Location: St. Laurent Twp.  
Elevation: Claim: 1136550  
Length: 41.21m Date Started: Feb. 12, 1991  
Measurement: metres Date Completed: Feb. 13, 1991  
Comments: Logged By: Joe MacPherson



Depth Azimuth Dip Depth Azimuth Dip Depth Azimuth Dip

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LOG SUMMARY

FROM	TO	LITHOLOGY
0.00	28.05	OVERBURDEN
28.05	41.45	SERICITE SCHIST, QUARTZ SERICITE SCHIST
	41.45	END OF HOLE

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TOTAL ENER GOLD CORPORATION

HOLE NO: 242-05

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
0.00	28.05	<b>OVERBURDEN</b> Humus, clay, sand, boulders on bedrock.					
28.05	41.45	<b>SERICITE SCHIST, QUARTZ SERICITE SCHIST</b> Original rock type appears to be a sequence of fine grained metasediments, varying from argillite to a slightly coarser grained unit, termed siltstone here on the basis of grain size. Rock is light grey green to lime green. It is highly altered and deformed. The most common mineral is sericite. It occurs as one centimeter wisps interlayered with siliceous layers of similar thickness oriented at less than 30° to the C.A. Minor quartz stringers are found associated with the sections of higher sericite content, and make up less than 1% of the rock unit.	20078 20079 20080 20081 20082 20083 20084 20085	28.95 30.16 31.67 32.88 34.57 35.48 36.40 38.41	30.16 31.67 32.88 34.57 35.48 36.40 38.41 41.45	1.21 1.51 1.21 1.69 0.91 0.92 2.01 3.04	0 0 0 0 0 10 0 7
		The fine grained sericitic sections are cut by/interbedded with a fine grained to medium grained quartz rich unit, which may be a quartzite or a quartz porphyritic intrusive. Contacts with the thinly bedded units are generally sharp and may be marked by an irregular quartz vein. These quartz rich sections also contain sericite which form a strong regular foliation at 20 to 30° to the C.A. This foliation is only apparent with the hand lens a cursory examination gives the impression that this unit is uniformly massive and undeformed.					
		Sample intervals are based on changes in rock type or alteration - ie, from fine grained highly sericitic metasediments to the quartz rich unit.					
		28.95 to 30.16 Sericitic metasediments. Fine grained, schistose at 25° to the C.A. Broken, blocky. 10 cm of broken quartz veining at lower contact.					
		30.16 to 31.67 Fine grained siliceous metasediment or quartz porphyry intrusive Strong foliation represented by parallel alignment of sericite in groundmass. Medium grey, sharp upper and lower contacts.					

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-05

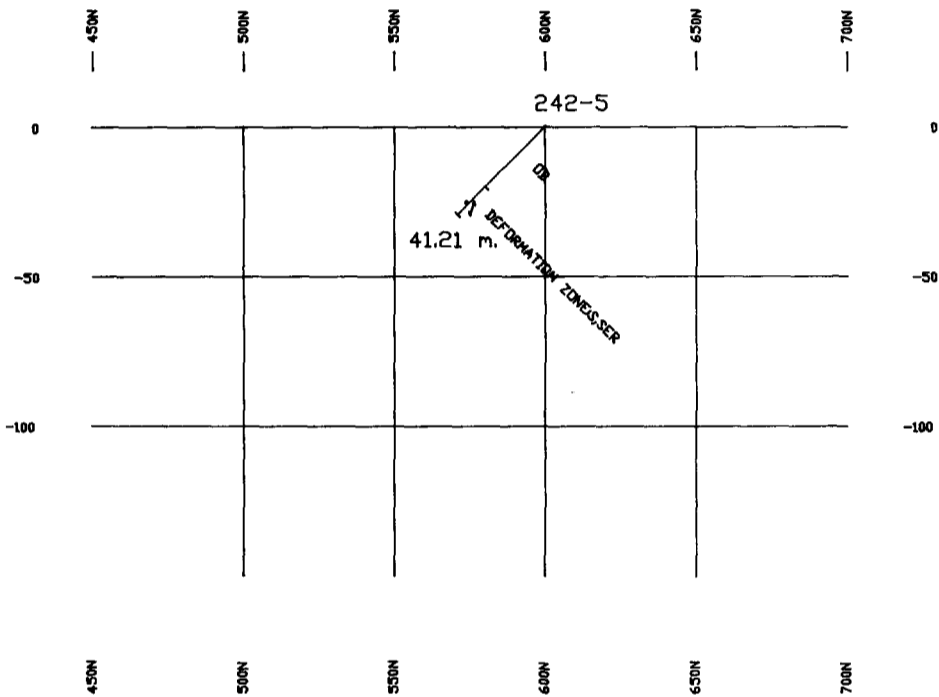
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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		31.67 to 32.88 Fine grained metasediments, sericitic, deformed. 1% irregular dark grey to black quartz ankerite veinlets with trace pyrite.					
		32.88 to 34.57 Massive, less broken, 30% irregular quartz grains/phenos in a fine grained sericitic matrix, forming a foliation at 30° to the C.A.					
		34.57 to 35.48 Fine-grained metasediments, trace pyrite in sericite/silica bands.					
		35.48 to 36.40 Light greenish grey, schistose quartz rich section. 1% irregular dark grey to black quartz ankerite stringers.					
		36.40 to 38.41 20% lost core. More fissile than previous sections. Thinly bedded metasediments. Broken core. Trace pyrite in isolated siliceous pods less than 1 cm in long axis dimension, parallel to schistosity.					
		38.41 to 41.45 60% lost core. Becoming very fissile, broken down the hole. Interlayering of sericitic and siliceous bands becoming dominant, and bands are wider (2-3 cm locally). Schistosity strong at 25° to the C.A. Occasional siliceous pod with fine grain pyrite.					
41.45		<b>END OF HOLE</b> Hole abandoned due to poor core recovery, low core angles and blocky ground. Hole redrilled to north on 2000E at 325N.					

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**LEGEND**

**VOLCANICS**

- V2 Felsic
- V4 Intermediate
- V7 Basalt
- V9 Tuff
- V10 Agglomerate

**SEDIMENTS**

- S3 Greywacke
- S4 Argillite

**INTRUSIVES**

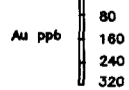
- 1R Felsic
- D6 Diabase

- ob overburden
- ft fault
- bx breccia
- p pillowed
- qv quartz vein

- gf graphite
- ser sericite
- fc fuchsite
- cb carbonatised
- sl silicified
- sl slightly
- alt altered

- po pyrrhotite
- py pyrite
- aspy arsenopyrite
- mt magnetite
- Fe Iron tholeiite

- IP Induced Polarization Anomaly



**TOTAL ENERGOLD CORPORATION**

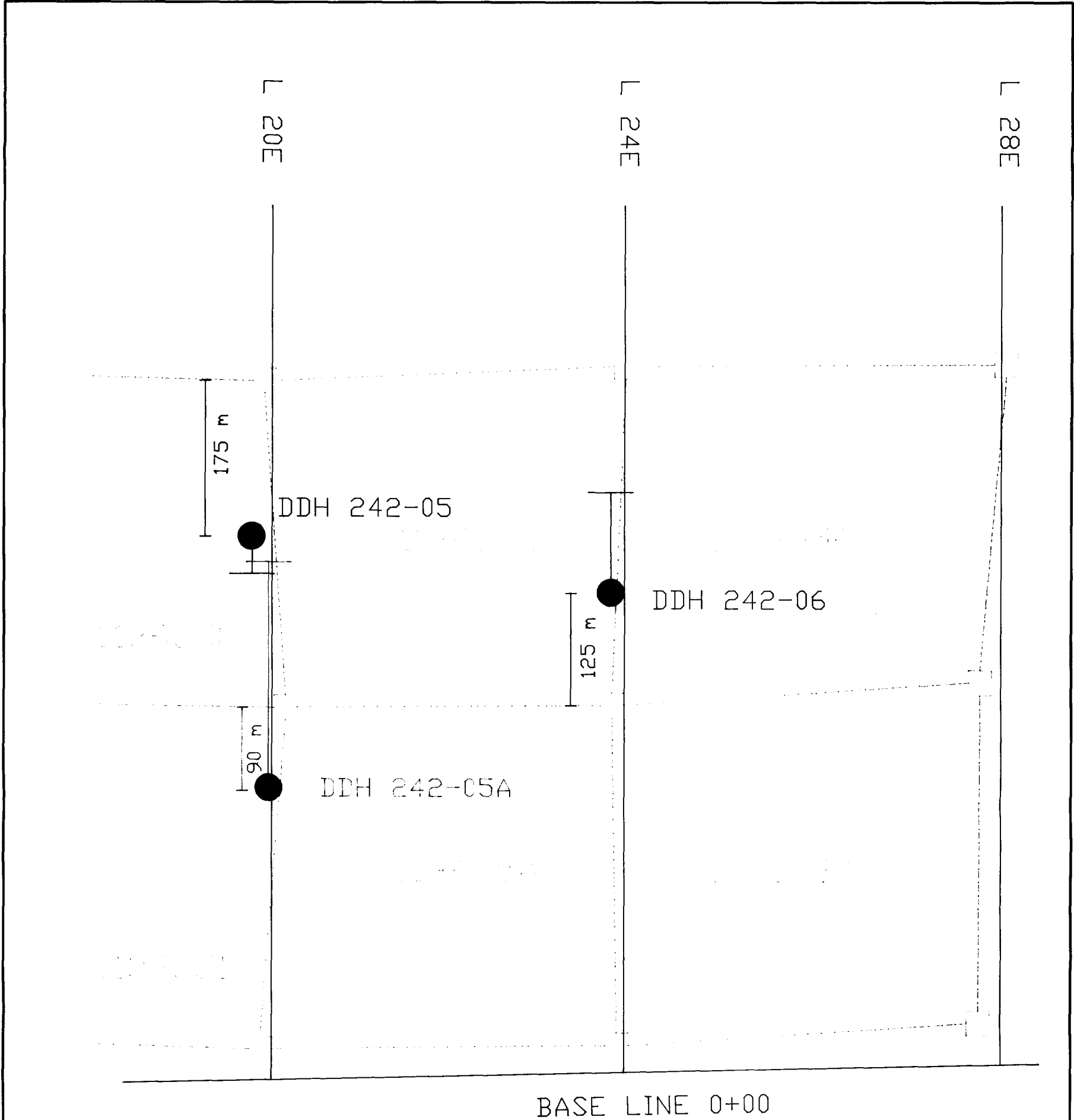
**ST. LAURENT**

**DDH 242-5**  
**Section 20+00 E**  
**Facing West**

*J.M.P.*

Drawn: J.M.P.	Checked: JMP	Scale: 1:2500	Drawing: SL-5
Date: March, 1991	Revised: March, 1991	Province: Ontario	NTS: 32 E/5



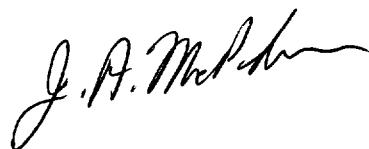


<b>TOTAL ENERGOLD CORPORATION</b>			
<b>ST. LAURENT</b>			
LOCATION MAP DDH 242-05A <i>J.M.P.</i>			
Drawn: J.M.P.	Checked: JMP	Scale: 1:5000	Drawing: SL5ALOC
Date: March, 1991	Revised: March, 1991	Province: Ontario	NTS: 32 E/5
0 50 100 150 200 METRES 			

TOTAL ENERGO GOLD CORPORATION

DIAMOND DRILL RECORD

Co-ords: 325N Section: L2000E HOLE NO: 242-05A  
Bearing: 360° Core Size: BQ Property: St. Laurent  
Dip: -51° Grid System: Location:  
Elevation: Claim: 1136550, 1136551  
Length: 401.18m Date Started: Feb. 13, 1991  
Measurement: metres Date Completed: Feb. 16, 1991  
Comments: Logged By: Joe MacPherson



Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
24.39		-48°	146.34		-38°	270.12		-36°
85.37		-41°	207.31		-36°	329.27		-32°
						382.92		-29.5°

LOG SUMMARY

FROM	TO	LITHOLOGY
0.00	24.39	OVERBURDEN
24.39	33.04	INTERBEDDED CHERT, SILICEOUS METASEDIMENTS
33.04	41.65	SIDERITE-ANKERITE IRON FORMATION
41.65	44.55	SHEAR ZONE: MIXED ASSEMBLAGE OF SIDERITE IRON FORMATION AND ARGILLITE
44.55	46.06	ARGILLITE
46.06	50.00	SILICIFIED, SERICITIC CHERT
50.00	51.11	QUARTZO-FELDSPATHIC METASEDIMENT
51.11	58.80	CHEMICAL METASEDIMENTS: VARIABLY ALTERED INTERBEDDED CHERT AND MUDSTONE
58.80	77.25	FELSIC METAVOLCANIC FLOWS
77.25	83.27	FELSIC TUFF, CRYSTAL TUFF
83.27	85.93	INTERBEDDED FELSIC CRYSTAL TUFF, INTERFLOW ARGILLACEOUS METASEDIMENTS
85.93	89.00	FINE GRAINED MUDSTONE
89.00	91.35	QUARTZ SERICITE SCHIST
91.35	92.34	QUARTZ CRYSTAL TUFF
92.34	100.98	MODERATELY DEFORMED INTERBEDDED MUDSTONE/ARGILLITE, MINOR CONGLOMERATE AND SEDIMENT BRECCIA

LOG SUMMARY (CONTINUED)

FROM	TO	LITHOLOGY
100.98	127.72	BRECCIATED AND FRACTURED AGGLOMERATE
127.72	139.00	MASSIVE TO LOCALLY FRAGMENTAL RHYODACITE
139.00	152.50	INTERBEDDED FELSIC LAPILLI TUFF, CRYSTAL TUFF AND ARGILLACEOUS METASEDIMENTS
152.50	172.00	FELSIC METAVOLCANICS AND RELATED TUFF, LAPILLI TUFF
172.00	178.85	ALTERED AND SHEARED FELSIC METAVOLCANICS AND RELATED TUFFS
178.85	197.20	QUARTZ EYE RHYOLITE, WEAKLY FOLIATED AND SERICITIC
197.20	332.95	ALTERED ZONE: QUARTZ SERICITE SCHIST (ALTERED FELSIC VOLCANIC FLOWS AND RELATED TUFFS)
332.95	364.35	FELSIC LAPILLI TUFF AND MINOR BEDDED TUFF
364.35	366.37	FELSIC QUARTZ CRYSTAL TUFF
366.37	386.30	MASSIVE QUARTZ EYE RHYOLITE TO RHYODACITE FLOWS
386.30	401.18	DACITE
	401.18	END OF HOLE

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
0.00	24.39	<b>OVERBURDEN</b>					
24.39	33.04	<b>INTERBEDDED CHERT, SILICEOUS METASEDIMENTS</b>	20086	26.96	28.90	1.94	0
		Medium grey, hard, well bedded at 70° to the C.A. Individual chert beds vary from 1 to 10 cm in thickness. Narrow sulphide-rich beds (pyrite) comprise < 1% of the unit. Chert is interbedded with siliceous mudstone, which is medium greenish grey and softer than the chert. Overall pyrite content is 1%; locally pyrite occurs in beds < 1cm thick or as discontinuous, randomly oriented fracture fillings. Siderite/ankerite occurs as masses randomly throughout the section, but becomes common towards the end of the section. 2-3% weak quartz crackle fracture with trace sulphides (pyrite).	20087	28.90	30.15	1.25	0
			20088	30.15	31.40	1.25	0
			20089	31.40	33.04	1.64	0
		26.96 to 28.90 First appearance of masses of siderite/ankerite. 10 cm sections centered at 27.15, 27.43, 28.40 meters. The carbonate assemblage is dark brown, amorphous, irregular, and may contain 2-3% pyrite after siderite.					
		31.40 to 33.09 Chert/mudstone assemblage becomes fractured and brecciated, up to 10% randomly oriented quartz veins varying from 0.5 to 5 cm thick. The veins and chert are both cut by irregular fractures filled with dark grey quartz with 1% pyrite. Late fractures make up 2% of the rock by volume. Overall sulphide content of this section has increased to 3%. Most of the pyrite occurs as fine dissemination within the siliceous mudstone breccia fragments, but a minor amount is also found in irregular fractures and also rimming fragments.					
		26.96 to 28.90 Weakly crackle fractured chert/siliceous mudstone. trace pyrite, 1% quartz veining, siderite/ankerite masses.					
		28.90 to 30.15 As above, increasing pyrite content and frequency of crackle fracture towards 31.40 meters. 1-2% diss'd pyrite. Minor sericitic fragments.					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		30.15 to 31.40 As above, increasing pyrite content and frequency of crackle fracture towards 31.40 meters. 1-2% diss'd pyrite. Minor sericitic fragments.					
		31.40 to 33.04 Moderate intensity of quartz veining and later quartz-filled crackle fracture. 2-3% finely disseminated pyrite.					
33.04	41.65	<b>SIDERITE-ANKERITE IRON FORMATION</b> Vuggy, intensely brecciated and cut by numerous randomly oriented quartz veins and stringers. Siderite content varies from 5 to 30%. It is massive and may be associated with varying percentages of ankerite, pyrite, and minor calcite. Pyrite may be later than siderite, and may be, along with calcite, an alteration product from siderite. Largest mass of siderite is at 5 cm, at 33.25 meters. Rock is highly weathered and broken. Rusty sections common. Very vuggy locally. Poor water return. Rep sample at 36.8 meters.	20090	33.04	33.78	0.74	0
			20091	33.78	34.83	1.05	0
			20092	34.83	35.83	1.00	0
			20093	35.83	36.80	0.97	0
			20094	36.80	38.65	1.85	0
			20095	38.65	39.70	1.05	0
			20096	39.70	40.36	0.66	0
			20097	40.36	41.65	1.29	0
		33.04 to 33.78 20% white quartz veining, no sulphides in vein, 15% siderite, 1-2% pyrite associated with siderite. Quartz vein contacts at 65° to the C.A. Weak degree of brecciation.					
		33.78 to 34.83 5% white quartz veining, strongly brecciated and vuggy, 15% siderite, broken up by numerous randomly oriented quartz stringers. 1% cubic pyrite.					
		34.83 to 35.83 As above, 7-10% white quartz stringers and veinlets, randomly oriented. Vuggy, highly crackle fractured.					
		35.83 to 36.80 20% siderite, broken by 15% irregular quartz veinlets and stringers. Vuggy, broken, 2% pyrite as cubes in siderite and in irregular fractures.					
		36.80 to 38.65 15-20% siderite, partially remobilized into irregular wisps and replaced in part by cubic pyrite. 15% quartz veining, rusty, irregular. Moderately vuggy, 2-4% pyrite as cubes and fine disseminations in wispy fractures with quartz and sericite.					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		38.65 to 40.36 Abrupt contact to more competent section of siderite iron formation. Not vuggy or broken. Pervasively silicified, with siderite-rich sections containing up to 7% cubic pyrite over 2-5 cm. Siderite-rich sections are also remobilized and have wavy, smooth contacts with the silicified gangue, which also contains up to 15% yellow ankerite. Minor pyritic fractures in silicified gangue.					
		38.65 to 39.70 10% wispy siderite altered to cubic pyrite (fractures within the siderite), ankerite and calcite. Pyritic fractures in gangue. 5% pyrite on average.					
		39.70 to 40.36 As above, 5% siderite, 2-3% pyrite.					
		40.36 to 41.65 50% siderite/ankerite/calcite, with minor pyrite (cubes) in these masses. Vuggy, but bedding contacts sharp at 60° to the C.A.					
		40.36 to 41.65 50% siderite, 10% quartz veining, 2% cubic & diss'd pyrite.					
41.65	44.55	<b>SHEAR ZONE: MIXED ASSEMBLAGE OF SIDERITE IRON FORMATION AND ARGILLITE</b>	20098	41.65	42.15	0.50	0
			20099	42.15	43.60	1.45	0
			20100	43.60	44.55	0.95	0
		Variably altered section, well foliated to schistose at 70° to the C.A. Sericite noted as foliation parallel wisps in siderite iron formation. 5% irregular quartz veining overall. 1-2% pyrite overall, some sections up to 8% pyrite.					
		41.65 to 42.15 Dark grey, silicified, wispy irregular foliation at 30-70° to the C.A. 15-20% pyrite as cubes, masses and finer disseminations. 2-5% narrow white quartz veins.					
		42.15 to 43.60 80% core recovery. Vuggy, sheared siderite iron formation. Schistosity at 60° to the C.A. 20% quartz ankerite veining.					
		43.60 to 44.55 <b>Shear Zone.</b> Very fissile, broken, intense schistosity at 70° to the C.A. Rusty weathering, otherwise lime green colour. Trace pyrite. Sharp lower contact to					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		considerably less sheared and altered metasediments.					
	41.65 to 42.15	15-20% pyrite, 2-5% quartz veins.					
	42.15 to 43.60	Siderite IF, sheared, 2% pyrite.					
	43.60 to 44.55	Shear Zone, intensely altered and deformed, trace pyrite.					
44.55	46.06	<b>ARGILLITE</b> Weakly sericitic, well foliated at 70° to the C.A. Consists of alternating bands of lime green (sericitic alteration) and light grey (carbonate alteration). Rock is soft and contains no sulfides. Sharp upper contact with shear zone, moderately sharp lower contact with silicified zone.	20101	44.55	46.06	1.51	0
	44.55 to 46.06	trace pyrite, moderately foliated.					
46.06	50.00	<b>SILICIFIED, SERICITIC CHERT</b> 5% quartz veining and irregular replacements of well banded chert beds with sharp contacts at 65-70° to the C.A. 1% pyrite as large cubes and minor fracture fillings. Colour varies from grey to lime green. 2-3% late irregular crackle fractures filled with grey quartz. Uniformly hard. Becomes well bedded below 46.70 meters - above this, more intense silification causes rock to be more massive in appearance.	20102 20103 20104 20105	46.06 47.70 47.97 49.22	47.70 47.97 49.22 50.00	1.64 0.27 1.25 0.78	0 0 0 0
	46.06 to 47.70	2% cubic pyrite, 5% irregular quartz veining, strongly silicified.					
	46.70 to 49.22	Increase in quartz veining, oriented generally subparallel to the C.A. White, milky, sharp contacts. Veins contain large cubes of pyrite, also pyrite as irregular masses and fracture fillings, and specular hematite as masses and fracture fillings. Pyrite and hematite filled fractures are parallel to quartz vein contacts. Hematite content for section is 1%, pyrite content 1-2%, trace chalcopyrite. Wallrock to the quartz veins is intensely silicified and sericitized with 1-2%					



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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		irregular grey quartz-filled crackle fractures. Trace disseminated pyrite in wallrock.					
	47.70 to 47.97	15% light grey quartz veins, randomly oriented, occasional pyrite cube in vein, trace disseminated pyrite in wallrock.					
	47.97 to 49.22	30% white quartz vein, oriented subparallel to the C.A. 1-2% pyrite in vein, 1% specular hematite also. Trace-1% disseminated pyrite in wallrock.					
	49.22 to 50.00	Minor quartz veining, 1-2% fractured controlled pyrite with minor specular hematite, well bedded chert with sharp bedding contacts at 80° to the C.A.					
	49.22 to 50.00	1-2% pyrite, 2% quartz veining.					
50.00	51.11	<b>QUARTZ-FELDSPATHIC METASEDIMENT</b> Sericitic, strongly foliated at 60° to the C.A. Sharp upper and lower contacts. 5-10% subrounded quartz grains set in a fine-grained matrix comprised of sericite and quartz. Trace pyrite.	20106	50.00	51.11	1.11	0
	50.00 to 51.11	Sericitic, trace pyrite, strongly foliated.					
51.11	58.80	<b>CHEMICAL METASEDIMENTS: VARIABLY ALTERED INTERBEDDED CHERT AND MUDSTONE</b> Sequence of variably altered chert and fine-grained mudstone. Bedding contacts are sharp and consistently at 60-65° to the C.A. Alteration in the chert beds is in the form of a moderate quartz crackle fracture and minor fracture-controlled pyrite. Alteration in the mudstone is primarily sericite, with minor narrow quartz stringers. A strong foliation is present parallel to bedding, imparted by parallel alignment of sericite grains. Sharp hardness contrast between the chert and mudstone. Cherty units are sampled: they host all the quartz crackle and the majority of the pyrite mineralization.	20107 20108 20109 20110 20111	51.11 51.97 53.16 54.88 54.88 55.38 56.49 57.50 58.80	51.97 53.16 54.88 56.49 58.80	0.86 1.19 0.88 1.11 1.30	0 0 0 0 0
	51.11 to 51.97	Strongly crackle fractured chert. High degree of deformation, with					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		crackles occupied mainly by ankerite. Trace pyrite as fine disseminations.					
		51.97 to 53.16 As above, with 10% interbedded sericitic mudstone. Sharp bedding contacts at 60° to the C.A. Trace pyrite in chert beds.					
		54.00 to 54.88 Dark grey, well bedded chert with 10% interbedded siliceous mudstone. Trace pyrite.					
		55.38 to 56.49 Dark grey chert, fractured with 5% quartz veining at low angles to the C.A. Numerous chloritic fractures imparting the darker colour to the chert. 3 cm siderite band with minor secondary pyrite at 55.65 meters.					
		57.50 to 58.80 Crackle-fractured chert, well bedded, thin siderite-bearing stringers parallel to bedding. Irregular wispy 2 cm pyritic stringer at 56.10 meters.					
58.00	77.25	<b>FELSIC METAVOLCANIC FLOWS</b>	20112	60.50	62.33	1.83	0
		Sharp contact with chemical sediments.	20113	65.00	65.84	0.84	0
		Sequence consists of a series of felsic flows, generally strongly altered to sericite, ankerite or both. Ankeritic portions are rusty weathering and vuggy. Local sericitic sections are very fissile and broken. Pyrite content is uniformly trace.					
		58.80 to 60.50 Moderately sericitic, uniform, light green, well foliated at 55° to the C.A. No pyrite.					
		60.50 to 62.33 Sericitic and ankeritic: moderately foliated at 55° to the C.A. Ankerite is present as stringers parallel to foliation and also as irregular discontinuous stringers randomly oriented throughout the section. 90% core recovery in this section. Trace pyrite.					
		60.50 to 62.33 Sericitic and ankeritic felsic volcanic. Trace pyrite.					
		The core is ankeritic to varying degrees to 71.42 meters. Sericite alteration remains uniformly moderate to strong throughout this section. Colour varies from lime green to alternating green and light brown.					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		65.00 to 65.84 10 cm quartz vein at 60° to the C.A. 1 cm pyritic seam parallel to foliation at 65.50 meters.					
		65.50 to 67.20 Broken, very fissile, 60% core recovery. Strongly sericitic.					
		67.80 to 68.54 Ankeritic and sericitic felsic volcanic. Very fissile, highly altered. Trace pyrite.					
77.25	83.27	<b>FELSIC TUFF, CRYSTAL TUFF</b>	20115	77.25	78.03	0.78	0
		Well bedded, strongly foliated felsic tuff and feldspar crystal tuff. Strongly sericitic, locally moderately ankeritic. 5% rounded quartz eyes scattered throughout this section. Colour is banded lime green and grey, with rusty brown ankeritic sections. Foliation is strong at 65-75° to the C.A. Minor graphitic slips towards the bottom of the section.	20116	78.03	79.55	1.52	0
			20117	79.55	81.08	1.53	0
			20118	81.08	81.77	0.69	0
			20119	81.77	83.27	1.50	0
		77.25 to 78.03 25 cm of interflow sediment with 2 1 cm bands of semi-massive pyrite. Dark grey, well bedded & foliated at 65° to the C.A. 20 cm of strong ankerite alteration at bottom of section.					
		78.03 to 79.55 Sericitic feldspar crystal tuff with minor argillite component. 5% foliation parallel quartz veinlets, trace pyrite in vein.					
		79.55 to 80.18 as above, 5% argillaceous slips, 1% pyrite in slips, 1-2% foliation parallel quartz veinlets.					
		80.18 to 81.77 as above, 10% argillaceous slips, trace pyrite, 5% foliation parallel quartz veinlets.					
		81.77 to 83.27 5% argillaceous slips (graphitic?) parallel to strong schistosity. 95% feldspar crystal tuff (10% subhedral feldspar, 1-2% anhedral quartz).					
83.27	85.93	<b>INTERBEDDED FELSIC CRYSTAL TUFF, INTERFLOW ARGILLACEOUS METASEDIMENTS</b>	20120	83.27	84.00	0.73	0
		75% felsic feldspar crystal tuff interbedded with 25% fine grained, thinly bedded argillite with minor graphitic slips. Masses and seams of fine	20121	84.00	85.00	1.00	7
			20122	85.00	85.93	0.93	0

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		grained pyrite aligned parallel with foliation, at 60° to the C.A. Alteration is moderate to strong, in the form of sericite and minor silification. 10% quartz veining parallel to foliation. Overall, there is 2-3% pyrite.					
		83.27 to 84.00 80% feldspar crystal tuff, 20% argillaceous interbeds. Latter very thin (mm) and convoluted. Pyrite present as wispy masses and lenses roughly parallel to foliation. 5% quartz veining or replacements parallel to schistosity.					
		84.00 to 85.00 25% foliation parallel quartz veining, with 5% very finely disseminated pyrite in the veins associated with argillaceous or graphitic slips in the veinlet. Host is mainly felsic feldspar crystal tuff with minor interbedded argillite. Pyrite also occurs as irregular wisps and lenses less than a centimeter long oriented parallel to foliation.					
		85.00 to 85.93 as above, 15% foliation parallel quartz veining, 3-5% pyrite in elongate lenses and wisps also parallel to the C.A.					
85.93	89.00	<b>FINE-GRAINED MUDSTONE</b> Strongly deformed, weakly altered. Strong foliation at 55° to the C.A. Unit is dark grey, soft. Numerous black argillaceous (graphitic?) slips parallel to foliation. 2% foliation parallel quartz veins, on average less than 5 cm wide. Rare narrow discontinuous pyrite band parallel to foliation.	20123 20124 20125	85.93 87.00 88.00	87.00 88.00 89.00	1.07 1.00 1.00	0 0 0
		85.93 to 87.00 Weakly altered, strongly deformed, trace pyrite.					
		87.00 to 88.00 As above, rare pyritic seam.					
		88.00 to 89.00 Becoming very fissile towards lower contact, trace pyrite, 1% quartz veining.					
89.00	91.35	<b>QUARTZ SERICITE SCHIST</b> Fissile, strongly deformed and sericitic. Consists of alternating thin bands of grey quartz and bright green sericite. The sericite forms a wavy foliation at an average of 55° to the C.A. Quartz bands host 5-10% cubic pyrite. 1% late white quartz veins parallel to foliation.	20126	89.00	91.35	2.35	0

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		89.00 to 91.35 1-2% disseminated cubic pyrite, sericitic.					
91.35	92.34	<b>QUARTZ CRYSTAL TUFF</b> Strongly sheared and deformed, core broken, 80% core recovery, very fissile. Less than 5% rounded white quartz eyes are visible. Local 1-5 cm bands of intense silicification. Light grey colour, occasional light green sericitic wisp parallel to foliation, which is at 55-60° to the C.A.	20127	91.35	92.34	0.99	0
		91.35 to 92.34 trace pyrite, strongly deformed.					
92.34	100.98	<b>MODERATELY DEFORMED INTERBEDDED MUDSTONE/ARGILLITE, MINOR CONGLOMERATE AND SEDIMENT BRECCIA</b> Locally pyritic, weakly sericitic with patchy silicification. Uniformly medium to dark grey. Highly variable, but appears to be mainly a reworked sedimentary breccia, with fractures and matrix replaced by a pyrite/silica mixture. The greatest degree of brecciation and subsequent silica/pyrite injection occurs between 91.35 and 96.93 meters.	20128 20129 20130 20131 20132	92.34 93.00 94.00 95.00 96.00	93.00 94.00 95.00 96.00 96.93	0.66 1.00 1.00 1.00 0.93	0 0 0 0 0
		92.34 to 93.00 Up to 20% fracture controlled, locally semi-massive pyrite occurring as irregular masses up to 5 cm wide.					
		93.00 to 94.00 As above, 15-20% pyrite.					
		94.00 to 95.00 Less fractured, considerably less pyrite (5%). More uniform.					
		95.00 to 96.00 Weak fracturing after brecciation, 1% pyrite.					
		96.00 to 96.93 96.60-96.93 meters is well fractured and pyritic (20%). Overall, 10% pyrite in section.					
		96.93 to 100.98 Weakly fractured argillite: fractures occupied by chlorite. Rock is medium grey, weakly foliated. Obscure bedding is oriented at 60° to the C.A.					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
100.98	127.72	<b>BRECCIATED AND FRACTURED AGGLOMERATE</b>	20133	100.98	101.50	0.52	0
			20134	101.50	102.50	1.00	0
		Siliceous clasts of varying size present, set in a fine grained chloritic matrix. Random chloritic fractures present locally. Pyritic fractures common locally as well. Local strong pervasive calcite.	20135	102.50	103.50	1.00	0
			20136	103.50	104.00	0.50	0
			20137	104.00	104.50	0.50	0
			20138	104.50	105.50	1.00	0
			20139	105.50	106.25	0.75	0
			20140	106.25	107.00	0.75	0
		100.98 to 104.50 Fine grained, well foliated at 60° to the C.A. 20% interbedded chloritic argillite, also 5% random chloritic fractures. Unit is dark grey to black, becoming lighter grey (due to less chloritic interbeds) towards 104.50 meters. Clasts are small (< 1 cm), siliceous, and elongated parallel to foliation. Pyrite occurs with quartz as irregular fracture fillings and rims around some of the larger clasts.	20141	107.00	108.00	1.00	0
			20142	108.00	108.84	0.84	0
			20143	108.84	109.58	0.74	7
			20144	109.58	110.55	0.97	0
			20145	110.55	111.79	1.24	0
			20146	124.90	126.26	1.36	0
			20147	126.26	127.72	1.46	0
		100.98 to 101.50 5% pyrite, clast size varies from .5 cm to 2 cm. 20% argillaceous fracture fillings. Pyrite associated with quartz mantling fragments and in random fractures.					
		101.50 to 102.50 1% fracture-filling pyrite, minor calcitic fractures.					
		102.50 to 103.50 Brecciated, clasts difficult to distinguish. 2% fracture-filling pyrite.					
		103.50 to 104.00 3% pyrite as fracture fillings with grey quartz. Lighter grey colour than previous sections. Less chloritic fractures and interbeds.					
		104.00 to 104.50 1% pyrite, clasts less than .5 cm, strongly calcitic.					
		104.50 to 109.58 Coarse agglomerate. Homolithic - felsic clasts (massive aphanitic rhyolite, rare quartz eye rhyolite) varying from 1 to 4 cm in dimension. Light grey. 5% random chloritic fractures. Quartz occurs with pyrite in random fractures and also mantling clasts.					
		104.50 to 105.50 Locally moderately brecciated, 5% pyrite in fractures with grey quartz.					
		105.50 to 106.25 Weakly brecciated, 2% pyritic fractures (+/- grey quartz).					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
	106.25 to 107.00	5% random chloritic fractures, 2-3% grey quartz-pyrite fractures.					
	107.00 to 108.00	Several large clasts (> 5 cm), 2% chloritic fracture fillings, 2% grey quartz/pyrite fracture fillings.					
	108.00 to 108.84	Well brecciated, 5% chloritic fractures, 1% grey quartz/pyrite fracture fillings.					
	108.84 to 109.58	25% grey quartz/pyrite fracture fillings with ankerite - locally semi-massive.					
	109.58 to 111.79	10% quartz ankerite veining, subparallel to the C.A. Minor pyrite.					
	109.58 to 110.55	10% quartz veining, 1% pyrite					
	110.55 to 111.79	10% quartz veining, 1% pyrite					
	111.79 to 127.72	Felsic agglomerate, continued. Less fracture controlled pyrite, clasts continue to be homolithic, angular to rarely subrounded. Core is light grey, moderately hard, cut by 1-2% chloritic fractures.					
	124.90 to 126.26	1% pyrite in fractures, a 20 cm quartz vein at low angles to the C.A., with chloritic margins.					
	126.26 to 127.72	20 cm quartz ankerite vein at 126.90 meters, < 1% pyritic fractures.					
127.72	139.00	<b>MASSIVE TO LOCALLY FRAGMENTAL RHYODACITE</b>	20148	131.30	132.57	1.27	0
			20149	134.80	136.28	1.48	0
		Massive, light to medium grey, compositionally very similar to agglomerate in previous section, except for more homogeneous nature and lack of distinguishable clasts. Minor to locally 25% chloritic fractures and interflow chloritic argillite. Locally fragmental with fracture-controlled and clast-mantling pyrite and grey quartz.	20150	136.28	137.00	0.72	0
			20151	137.00	138.00	1.00	0
			20152	138.00	139.00	1.00	0
	131.30 to 132.57	Fragmental. Distinct clasts rimmed with chlorite, minor fracturing. Local fracture-controlled grey quartz and pyrite (3% of section).					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		131.30 to 132.57 3% grey quartz and pyrite fracture fillings.					
		134.50 to 139.00 Fragmental. Similar to section from 131.30-132.57 meters. More fracture-controlled pyrite hosted by grey quartz. This material could be original and remobilized by deformation. Chlorite fractures may have a similar origin (related to deformation and alteration).					
		134.80 to 136.28 1% irregular grey quartz/pyritic fractures. At 136.28 meters there is a 3 cm band of pyrite and grey quartz with minor ankerite.					
		136.28 to 137.00 5% fracture-controlled and clast rimming pyrite/grey quartz.					
		137.00 to 138.00 25% fracture-controlled and clast-rimming pyrite/grey quartz. Locally vuggy in areas of semi-massive pyrite. Individual pyrite masses have a maximum extent of 5 centimeters.					
		138.00 to 139.00 15% fracture-controlled and clast-rimming grey quartz and pyrite. A couple of 1 cm massive pyrite bands.					
139.00	152.50	<b>INTERBEDDED FELSIC LAPILLI TUFF, CRYSTAL TUFF AND ARGILLACEOUS METASEDIMENTS</b> Light grey felsic lapilli tuff to bedded tuff, intercalated with thinly bedded, black argillite, largely altered to chlorite. Felsic volcanics are weakly altered to sericite in patches and hard.					
152.50	172.00	<b>FELSIC METAVOLCANICS AND RELATED TUFF, LAPILLI TUFF</b> Thick sequence of unaltered to locally weakly sericitic massive felsic flows and tuffs, with minor lapilli tuff. Trace pyrite as isolated cubes and rare discontinuous thin bands. No quartz veining. Rock is uniformly hard, except in the areas of weak sericite alteration.					
		163.88 to 166.88 Weak patchy sericitization, restricted to tuffaceous sections. Weak greenish tinge, slightly softer than unaltered felsic tuffs.					



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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
172.00	178.85	<b>ALTERED AND SHEARED FELSIC METAVOLCANICS AND RELATED TUFFS</b>	20153	172.00	173.00	1.00	0
		Mixture of fine-grained felsic tuffs and aphanitic felsic flows. Light grey, well foliated to locally intensely sheared over 10-20 cm - these zones are moderately sericitic. The foliation is oriented at 65-70° to the C.A. Locally a crenulation cleavage is well developed at nearly right angles to the C.A. This is present only in the most highly deformed sections. 1-2% white quartz veining, trace to locally 1% disseminated to cubic pyrite.	20154	173.00	174.00	1.00	0
			20155	174.00	175.00	1.00	0
			20156	175.00	176.00	1.00	0
			20157	176.00	176.70	0.70	10
			20158	176.70	177.40	0.70	10
			20159	177.40	178.85	1.45	0
		172.00 to 173.00 Moderately foliated, weak crenulation cleavage, 2% pyrite in wavy foliation planes.					
		173.00 to 174.00 Well foliated to sheared, local broken rock, 10% quartz veining and irregular quartz ankerite replacements with diffuse contacts. trace-1% cubic pyrite. Foliation at 60° to C.A.					
		174.00 to 175.00 As above, moderate sericite development, trace pyrite.					
		175.00 to 176.00 As above, trace pyrite.					
		176.00 to 176.70 3 cm white quartz vein at right angles to the foliation and 45° to the C.A.					
		176.70 to 177.40 <b>Shear Zone.</b> Very fissile pyritic shear, oriented at 50° to the C.A. Rusty section at 176.70 meters is 10 cm wide. Very sericitic on footwall of shear for 30 cm. Shear is roughly 40 centimeters wide. 3% fine disseminated pyrite in narrow bands parallel to shearing.					
		177.40 to 178.85 Shearing intensity decreasing down the hole. Moderately sericitic felsic flow, occasional rounded quartz eye, trace pyrite.					
178.87	197.20	<b>QUARTZ EYE RHYOLITE, WEAKLY FOLIATED AND SERICITIC</b>					
		Light greyish green, hard, weakly foliated at an average of 55° to the C.A. 5% translucent rounded quartz eyes scattered throughout the section. Greenish tinge is caused by weak					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		pervasive sericite alteration, which is also responsible for the weak foliation.					
	182.00	3 cm Fault Zone, oriented at 60° to the C.A.					
		Degree of deformation is increasing towards the bottom of the section. Occasional 1-2 cm wide white quartz vein after 191 meters.					
197.20	332.95	<b>ALTERED ZONE: QUARTZ SERICITE SCHIST (ALTERED FELSIC VOLCANIC FLOWS AND RELATED TUFFS)</b>	20160	197.20	199.60	2.40	0
		Unit consists of thin felsic flows and crystal tuffs to bedded tuffs. The tuffaceous units are strongly deformed altered to an assemblage of banded grey quartz interspersed with thin wispy sericite stringers. This imparts an banded grey and green colour to the core. Where visible, the crystal tuff contains 5% rounded quartz eyes, and the occasional large feldspar grain (.5 cm in diameter). Lapilli occur rarely and are usually massive aphanitic rhyolite to quartz eye rhyolite. Lapilli are generally less sericitic than the supporting matrix.	20161	199.60	200.38	0.78	0
			20162	200.38	201.93	1.55	0
			20163	201.93	203.66	1.73	0
			20164	203.66	205.35	1.69	0
			20165	205.35	207.20	1.85	0
			20166	207.20	208.07	0.87	0
			20167	231.40	232.65	1.25	7
			20168	232.65	233.70	1.05	0
			20169	233.70	235.40	1.70	0
			20170	235.40	236.25	0.85	0
			20171	236.25	237.32	1.07	0
			20172	237.32	237.85	0.53	0
			20173	237.85	239.30	1.45	0
			20174	239.30	240.53	1.23	0
			20175	241.28	242.03	0.75	0
	197.20 to 199.60	Strongly foliated at 55° to the C.A., weakly sericitic, 15% chloritic stringers and wisps parallel to foliation. Trace pyrite.	20176	242.03	243.19	1.16	0
			20177	243.19	244.46	1.27	0
			20178	244.46	245.67	1.21	0
			20179	245.67	246.57	0.90	0
	199.60 to 200.38	Strongly deformed and sericitic. Well banded, consists of alternating sericitic and grey quartz, < than 1 cm wide, cut by foliation parallel 1-2 cm wide white quartz veinlets (5% of section). Trace pyrite.	20180	259.35	260.91	1.56	0
			20181	260.91	262.40	1.49	0
			20182	262.40	263.96	1.56	0
			20183	264.80	266.12	1.32	0
			20184	267.94	269.80	1.86	0
			20185	271.37	272.37	1.00	0
	200.38 to 201.93	As above, 10% lapilli tuff, trace pyrite.	20186	272.37	273.73	1.36	0
			20187	278.30	279.63	1.33	0
			20188	279.63	281.15	1.52	0
	201.93 to 203.66	As above, trace pyrite, sericitic bands narrow and wispy - foliation varies from 45 to 70° to the C.A.	20189	284.53	285.29	0.76	0
			20190	288.75	289.70	0.95	0
			20191	289.70	290.40	0.70	0
			20192	290.40	291.70	1.30	0
	203.66 to 205.35	Intense sericite alteration, strong deformation, trace pyrite, 5% foliation parallel white quartz veinlets.	20193	291.70	293.16	1.46	7
			20194	293.16	294.03	0.87	7
			20195	294.03	295.50	1.47	0
			20196	295.50	296.50	1.00	0
	205.35 to 207.20	Grey, unaltered lapilli tuff, well foliated at 45° to the C.A. Matrix to lapilli is a fine mudstone. Sharp upper and lower	20197	296.50	297.00	0.50	0
			20198	297.00	297.50	0.50	0
			20199	297.50	298.00	0.50	0

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		contacts to much more sericitic material.	20200	298.00	299.00	1.00	0
			20201	299.00	300.00	1.00	0
	205.35 to 207.20	Grey lapilli tuff, trace pyrite.	20202	300.00	301.00	1.00	0
			20203	301.00	302.30	1.30	0
	207.20 to 208.07	Strongly sheared and intensely sericitized quartz eye rhyolite. Sharp alteration contacts. Shearing consistent at 35° to the C.A.	20204	305.05	306.63	1.58	0
			20205	306.63	308.15	1.52	0
			20206	308.15	309.68	1.53	0
			20207	309.68	310.50	0.82	0
			20208	310.50	311.50	1.00	0
	207.20 to 208.07	Intensely sheared and deformed, trace pyrite.	20209	311.50	312.50	1.00	0
			20210	312.50	313.00	0.50	0
			20211	313.00	314.00	1.00	0
	208.07 to 231.40	Sequence of mixed felsic quartz eye to aphanitic flows interlayered with bedded to locally bedded crystal tuff and minor lapilli tuff. Rock is uniform no quartz veining, attitude of foliation varies between 45 and 60° to the C.A. Occasional pyrite clast (<< 1cm), local moderate to strong sericite alteration, on average, sericite alteration is weak to moderate. This section is still considered part of a wide shear/alteration zone.	20212	314.00	315.00	1.00	0
			20213	321.00	321.88	0.88	0
			20214	322.78	323.55	0.77	0
			20215	324.93	325.80	0.87	0
			20216	325.80	327.17	1.37	0
			20217	327.17	327.98	0.81	0
			20218	327.98	329.45	1.47	0
			20219	329.45	330.30	0.85	0
			20220	330.30	331.30	1.00	0
			20221	331.30	331.85	0.55	0
			20222	331.85	332.30	0.45	0
	231.40 to 240.53	<b>Quartz veined shear zone.</b> Moderately sericitic, highly sheared. locally unconsolidated fault gouge. White milky quartz veins intrude parallel to sericitic slips and are oriented at 55° to the C.A. These make up about 10% of the section. A further 3-5% of the shear zone is cut by irregular dark grey quartz ankerite veinlets which rarely attain 1 cm in width. These pinch and swell throughout the section. Sulfide content is uniformly trace.	20223	332.30	332.95	0.65	17
	231.40 to 232.65	Probable massive felsic volcanic, 3% irregular dark grey quartz ankerite veinlets. Flow is grey with light green sericitic streaks. Nil pyrite.					
	232.65 to 233.70	Tuff to lapilli tuff. 5% white quartz veining, 2-4% irregular dark grey quartz ankerite veining. 1% very fine disseminated pyrite, usually associated with strongly sericitic fragments.					
	233.70 to 235.40	Strongly sericitized thinly bedded tuffs. Strong foliation at 50° to the C.A. Trace pyrite.					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
	235.40 to 236.25	Intensely sheared rock. 25 cm of unconsolidated fault gouge at 235.75 meters. 10 cm graphitic shear centered at 235.50 meters. 10% quartz veining, trace pyrite.					
	236.25 to 237.32	Very fissile, sericitic, strong fabric at 65-70° to the C.A. 2% foliation-parallel quartz veining.					
	237.32 to 237.85	50% dark grey quartz veining, strongly sericitized wallrock, sericitic inclusions and wisps within the quartz veins, which reach a maximum width of 30 cm. 1 cm of unconsolidated fault gouge at 237.37, which marks the start of the main mass of quartz veining.					
	237.85 to 239.30	20% quartz veining, as above, strongly sericitic wallrock, trace cubic pyrite in wallrock.					
	239.30 to 240.53	Decreasing intensity of shearing and sericite alteration towards the bottom of the section. A few quartz eyes evident. 5% veining, of both the dark grey quartz ankerite and white milky quartz variety.					
	240.53 to 241.28	Less altered felsic flows and minor bedded tuff. Weakly sericitic and foliated at 60° to the C.A.					
	241.28 to 246.59	<b>Quartz veined shear zone.</b> Shearing not as intense and less veined than previous section. Rock locally broken with minor amounts of unconsolidated fault gouge. Local strong schistosity at 25 to 60° to the C.A. 5% quartz veins, of both varieties, overall.					
	241.28 to 242.03	Numerous thin slips (< 1 cm wide), filled with fault gouge. 10 cm of fault gouge at 246.70 meters. 10% dark grey quartz veining oriented parallel to foliation. Trace disseminated pyrite.					
	242.03 to 243.19	1-2% irregular dark grey quartz ankerite veinlets, 75% dark grey quartz ankerite veining from 242.90-243.19 meters. Trace pyrite.					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		243.19 to 244.46					
		Minor quartz veining. First appearance of small rounded black quartz eyes.					
		244.46 to 245.67					
		Strongly sheared and quartz veined. Schistosity strong and deformed, oriented from 10 to 75° to the C.A. Minor white quartz veining, 20% irregular dark grey quartz ankerite veins, up to 10 cm wide, trace pyrite only.					
		245.67 to 246.57					
		50% dark grey quartz ankerite veining, strongly sericitic wallrock.					
		246.57 to 259.35					
		Assemblage of variably sericitic and strongly foliated felsic flows and related tuffs, minor lapilli tuffs. 1% black quartz-ankerite-calcite blebs, subrounded, sometimes elongated parallel to foliation - originally the rock may have been a quartz crystal tuff or quartz eye rhyolite. If so, it is extremely highly deformed and altered. 1% foliation-parallel quartz veins and 1-2% irregular dark grey to black quartz ankerite stringers and masses. Pyrite content uniformly low. Foliation varies from 45 to 60° to the C.A.					
		Narrow shears with minor unconsolidated fault gouge at 249.05 and 255.09 meters.					
		259.35 to 260.91					
		Moderately sheared and quartz veined felsic flows and related tuffs. Minor lapilli-size fragments noted. Strongly sericitic, with sericite masses up to 5 cm wide common. 20% quartz ankerite veining, broken and irregular, but generally intruding parallel to foliation.					
		260.91 to 262.40					
		30% sericite masses in section. 15% dark grey quartz ankerite veins, trace pyrite.					
		262.40 to 263.96					
		As above, 10% dark grey quartz ankerite veining. A 5 cm pink quartz vein intrudes at 10° to the C.A., centered at 263.00 meters.					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		263.96 to 264.80 Minor sericite alteration, trace pyrite. Light greenish grey.					
		264.80 to 266.12 Moderate shearing, moderate sericite development. 1 cm fault gouge at 265.00 meters. Sericite forms strong foliation at 55° to the C.A.					
		264.80 to 266.12 Trace pyrite, 3% dark grey quartz ankerite veinlets.					
		266.12 to 267.94 Less deformed, 1-2% dark grey quartz ankerite veinlets.					
		267.94 to 269.80 Moderate to locally strong deformation, local intense sericite development in areas of strong deformation, over 25 cm.					
		267.94 to 269.80 Sericitic, trace pyrite, 5% dark grey quartz ankerite veinlets, developed parallel to and crosscutting foliation planes.					
		269.80 to 271.37 Medium green, less deformed, trace pyrite, 1-2% dark grey quartz ankerite veinlets.					
		271.37 to 273.73 Moderately sheared and highly altered and quartz veined felsic volcanics. 15% dark grey quartz ankerite veinlets, 1% white quartz veinlets.					
		271.37 to 272.37 Moderate to strong sericite development, 5% quartz ankerite veinlets, trace pyrite.					
		272.37 to 273.73 15% dark grey quartz ankerite veinlets, sericite forming string foliation at an average of 60° to the C.A.					
		273.73 to 278.30 Massive to weakly foliated, moderately to strongly sericitic quartz eye rhyolites and minor quartz eye crystal tuff.					
		278.30 to 281.15 <b>Zone of shearing and quartz veining.</b> Moderate to strong intensity. Local intense development of sericite, forming a strong foliation at 55° to the C.A.					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		278.30 to 279.63 Strongly sericitic and sheared from 279.00-279.20 meters. 5% medium grey quartz ankerite veinlets, trace pyrite.					
		279.63 to 281.15 Less sheared, continuing strong sericite development. Trace pyrite.					
		281.15 to 284.53 Moderate sericite development, weak foliation at 55° to the C.A., light greenish grey.					
		284.53 to 285.29 Moderate shearing, accompanied by 25 cm of white quartz ankerite veining with numerous chloritic slips.					
		284.53 to 285.29 30% quartz ankerite veining, trace pyrite, chloritic slips.					
		285.29 to 288.75 Uniformly light greenish grey, 1% irregular quartz ankerite veinlets, trace pyrite, massive to weakly foliated.					
		288.75 to 332.95 <b>Complex zone of shearing, local silicification, quartz veining, and secondary pyrite development.</b> Several strong shears noted throughout the section, marked by intense sericite development or unconsolidated fault gouge over a few cm.					
		Silicification occurs over 10-100 cm intervals and is pervasive and often accompanied by a moderate to intense crackle fracture filled with grey quartz. Pyrite content is usually low in these sections.					
		Veining occurs as both the dark grey quartz ankerite and white quartz variety. The dark quartz ankerite variety occurs as irregular veinlets and masses, locally oriented parallel to the foliation, or as cross-cutting later stringers. The white veins occur parallel to schistosity and often exhibit sericitic margins and inclusions.					
		Pyrite occurs with grey quartz and sericite in narrow bands less than 1 cm wide or as discontinuous lenses less than 1 cm in long dimension (oriented parallel to foliation).					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		288.75 to 289.70 Local strong sericite development, 20 cm of silicification with minor grey quartz crackle fracture.					
		289.70 to 290.40 Moderate silicification, grey quartz crackle fracture, trace pyrite.					
		290.40 to 291.70 As above.					
		291.70 to 293.16 1 cm fault gouge at 291.7, 292.3 meters. 2-5 cm white quartz veins with chloritic fractures associated with gouge sections.					
		293.16 to 302.30 Pyritic section. Locally up to 5% pyrite associated with grey quartz sericite lenses, masses and bands oriented parallel to foliation.					
		293.16 to 294.03 5-7% pyrite, in quartz sericite bands parallel to foliation.					
		294.03 to 295.50 1% pyrite, in isolated quartz sericite lenses, weakly foliated at 55° to the C.A.					
		295.50 to 296.50 1-2% pyrite as very fine disseminations in quartz sericite bands and lenses.					
		296.50 to 297.00 As above, 1% pyrite in darker quartz sericite bands, well foliated at 50° to the C.A.					
		297.00 to 297.50 Quartz chlorite vein, 5 cm wide, at low angles to the C.A. Sharp contacts with sericitic wallrock. Numerous chloritic fractures within vein.					
		297.50 to 298.00 Low angle quartz chlorite vein, continued. Also a 5 cm white quartz veinlet and white quartz mass, at 297.8 meters.					
		298.00 to 299.00 Minor indistinct quartz-sericite-pyrite masses and discontinuous lenses.					
		299.00 to 300.00 As above, more continuous parallel to foliation.					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
	300.00 to 301.00	0.5% pyrite associated with quartz sericite masses and foliation parallel discontinuous lenses. Intense sericite centered at 300.50 meters, associated with shear.					
	301.00 to 302.30	Trace pyrite, strong foliation at 55° to the C.A., 1% white quartz veins parallel to foliation.					
	302.30 to 305.05	Less deformed, no pyrite, 1% quartz ankerite veinlets.					
	305.05 to 309.68	Strongly to locally intensely deformed and sericitic. Trace to 1% very fine disseminated pyrite throughout section. Foliation is strong and consistent at 55° to the C.A.					
	305.05 to 306.63	Moderately sericitic trace disseminated pyrite.					
	306.63 to 308.15	As above, 10% grey to white foliation parallel quartz veining, 20 cm of fault gouge at 307.50 meters. Trace pyrite.					
	308.15 to 309.68	As above, moderate sericite.					
	309.68 to 315.00	Quartz sericite schist. Well banded unit consisting of alternating quartz and sericite layers with 1% very finely disseminated pyrite throughout section. Local minor fault gouge and an average of 5% late white quartz veins.					
	309.68 to 310.50	Indistinct banding at top of section becoming more distinct towards lower contact. 1% very fine disseminated pyrite.					
	310.50 to 311.50	Well banded quartz sericite schist. 0.5% very fine disseminated pyrite, occasional cube also present. 2% white quartz veining, as narrow (1-4 cm) foliation parallel veins.					
	311.50 to 312.50	As above, darker grey-green sections contain most of the fine disseminated pyrite.					
	312.50 to 313.00	Quartz sericite schist, becoming more sericitic towards the lower					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		contact. 5% late foliation parallel white quartz veining. Trace pyrite overall.					
	313.00 to 314.00	Strongly foliated to locally sheared over a few centimeters. Intensely sericitized. 2 cm of unconsolidated fault gouge at 313.90 meters. 10% foliation parallel white quartz ankerite veins.					
	314.00 to 315.00	25% quartz ankerite veining, mainly grey to white. Trace pyrite, very sericitic. 20 cm quartz vein at lower contact, with 1 cm of unconsolidated fault gouge at upper contact.					
	315.00 to 321.00	Moderately sericitic, massive to weakly foliated felsic flows and minor fine grained bedded tuffs. 1% dark grey quartz ankerite veining, trace pyrite.					
	321.00 to 321.88	<b>Zone of strong silicification and quartz veining.</b> 2 cm fault gouge at 321.03 m marks the start of very sericitic and deformed wallrock to the zone of veining/silicification. The silicified sections are 10-25 cm wide, medium to dark grey, very hard and silica crackle fractured. Veining is white and appears late, crosscutting the silicified zones. Trace pyrite.					
	321.00 to 321.88	Trace pyrite, silicified, 2% white quartz veins.					
	321.88 to 324.93	Massive to weakly foliated at 55° to the C.A., moderately sericitic felsic flows and related tuffs.					
	322.78 to 323.35	Contains a 10 cm grey quartz vein with sericitic wallrock. Minor fault gouge at upper contact of vein.					
	324.93 to 327.17	50% grey quartz ankerite veining with numerous sericitic slips and wallrock. Trace pyrite, sharp contacts to unit with overlying and underlying sericitic units.					
	324.93 to 325.80	50% quartz veining, trace pyrite.					

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
	325.80 to 327.17	30% dark grey quartz ankerite veining, 1% pyrite in narrow dark grey green discontinuous bands parallel to foliation.					
	327.17 to 331.30	Moderately sericitic felsic volcanic flows and related bedded tuffs. Local pyritic lenses and discontinuous bands. Pyrite hosted by a grey quartz sericite gangue.					
	327.17 to 327.98	Moderately sericitic - wisps form a strong foliation at 55° to the C.A. 20% grey quartz ankerite stringers parallel to foliation.					
	327.98 to 329.45	Strongly sericitic - more pervasive than previous section. Minor quartz veining only.					
	329.45 to 330.30	Becoming strongly sericitic towards the lower contact. 1% pyrite as discontinuous bands with grey quartz and fine-grained sericite.					
	330.30 to 331.30	Lithological contact at 330.30 meters. Rock is finely bedded felsic tuff - bedding is at 70° to the C.A. Grains vary in size from 1-5 mm and are composed of quartz and feldspar. Finer grained material between these beds is sericitic - may be originally mudstone or very fine ash tuff.					
	331.30 to 332.95	<b>Intensely silicified zone.</b> Upper contact is sharp at 70° to the C.A. and is marked by 1 cm of unconsolidated fault gouge. Two sections of silicification are present: from 331.30-331.85 meters and from 332.30-332.95 meters. The rock between these two units is strongly deformed and sericitic and is marked by a 1 cm fault at the upper and lower contact (ie, at 331.85 and 332.30 meters). Silicified sections do not contain any sulfides.					
	331.30 to 331.85	Strongly silicified; sharp upper and lower contacts, no pyrite.					
	331.85 to 332.30	Strongly sericitic and foliated at 60° to the C.A. Nil pyrite.					
	332.30 to 332.95	Strongly silicified as per 331.30-331.85 meters.					

TOTAL ENER GOLD CORPORATION

HOLE NO: 242-05A

Page No: 26 of 29

FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
332.95	364.35	<b>FELSIC LAPILLI TUFF AND MINOR BEDDED TUFF</b>	20224	338.55	339.50	0.95	0
			20225	339.50	340.50	1.00	0
		A sericitic fine grained matrix supports this heterolithic lapilli tuff. Fragment size varies from a few mm to 2-3 cm in the short dimension (right angles to CA). Fragments are an approximately equal mixture of aphanitic to quartz eye rhyolite and fine-grained dacite. The matrix was probably originally an ash or mudstone. Narrow (1-5 cm) finer grained tuff units are interspersed within the lapilli tuff. A moderate foliation is produced by parallel alignment of sericitic wisps and stringers and is oriented at an average of 70° to the C.A. Unit becomes pyritic below 338.55 meters. Pyrite occurs as wisps and masses with grey quartz and sericite. These are usually oriented parallel to foliation. A minor amount of pyrite is also found in irregular dark grey quartz ankerite stringers. The pyritic masses are small - less than 1 cm in long dimension - the occasional mass may be 1-3 cm wide, interspersed with grey quartz and sericite.	20226	340.50	341.50	1.00	0
			20227	341.50	342.50	1.00	0
			20228	342.50	343.50	1.00	0
			20229	343.50	344.50	1.00	0
			20230	344.50	345.50	1.00	0
			20231	345.50	346.50	1.00	0
			20232	346.50	347.50	1.00	0
			20233	347.50	348.50	1.00	0
			20234	348.50	349.50	1.00	0
			20235	349.50	350.50	1.00	10
			20236	350.50	351.50	1.00	10
			20237	351.50	352.50	1.00	0
			20238	352.50	353.50	1.00	0
			20239	353.50	354.50	1.00	0
			20240	354.50	355.50	1.00	14
			20241	355.50	356.50	1.00	14
			20242	356.50	357.50	1.00	0
			20243	357.50	358.50	1.00	0
			20244	358.50	359.50	1.00	0
			20245	359.50	360.50	1.00	0
			20246	360.50	361.50	1.00	0
			20247	361.50	362.50	1.00	10
		338.55 to 339.50 1% very fine disseminated pyrite, rare quartz-sericite-pyrite mass or bleb, moderately sericitic in bands; these are oriented at 50° to the C.A.	20248	362.50	363.85	1.35	0
			20249	363.85	364.35	0.50	0
		339.50 to 340.50 2% pyrite in masses up to 3 cm wide; moderately sericitic.					
		340.50 to 341.50 Moderately sericitic, foliated at 55° to the C.A., trace disseminated pyrite.					
		341.50 to 342.5 Moderately to strongly sericitic, thin sericite-quartz-pyrite seams, << 5 mm wide, 5% white quartz veinlets, 1-2 cm wide, parallel to foliation. 5 cm of fault gouge at 341.70 meters, sericitic margins to the fault zone.					
		342.50 to 343.50 3% quartz-sericite-pyrite seams, stringers parallel to the C.A., minor irregular stringers at various angles to the C.A. The individual seams/stringers contain 30-50% very fine disseminated pyrite.					

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-05A

Page No: 27 of 29

FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		343.50 to 344.50 1% grey quartz sericite pyrite bands and seams, up to 0.5 cm wide. 50% pyrite in bands. Oriented parallel to foliation, at 70° to the C.A.					
		344.50 to 345.50 1% quartz sericite pyrite seams and lenses, oriented parallel to foliation. Moderately sericitic groundmass to lapilli tuff.					
		345.50 to 346.50 0.5% quartz sericite pyrite lenses and discontinuous seams. slightly more sericitic than previous sections. 3% white narrow quartz ankerite veinlets parallel to foliation.					
		346.50 to 347.50 1% quartz sericite pyrite seams. Grey section, more siliceous, 20% light grey quartz ankerite veining.					
		347.50 to 348.50 More sericitic, quartz sericite pyrite seams becoming narrow and irregular.					
		348.50 to 349.50 0.5 thin irregular quartz sericite pyrite seams, moderate foliation oriented at 65° to the C.A.					
		349.50 to 350.50 0.5% quartz-sericite-pyrite bands (Q-S-P) and discontinuous lenses.					
		350.50 to 351.50 1-2% Q-S-P bands, masses and lenses oriented parallel to CA. Pyrite content is uniform at 50-60%, very finely disseminated.					
		351.50 to 352.50 1-2% Q-S-P bands and masses containing 50% pyrite.					
		352.50 to 353.50 2% Q-S-P bands and masses with 50% very fine disseminated pyrite. These masses appear to intrude and brecciated the lapilli tuff matrix and fragments.					
		353.50 to 354.50 First 20 cm has 10% Q-S-P bands and discontinuous lenses, remainder of section is uniformly sericitic - light grey green trace pyrite, foliation at 50° to the C.A.					
		355.50 to 363.85 Increase in quartz-sericite-pyrite bands to an average of 10% of the rock. Pyrite content of these masses remains at 40-					

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-05A

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		60%. Some sections are 40 cm wide, with 80% Q-S-P masses. Pyrite is very fine grained and gives the core a grey dusty appearance.					
	355.50-356.50	5% Q-S-P bands, masses and discontinuous lenses oriented parallel to sericitic wisps forming a strong foliation at 60° to the C.A.					
	356.50 to 357.50	3% Q-S-P seams and discontinuous masses. Moderately sericitic, foliation at 55° to the C.A.					
	357.50 to 358.50	20% Q-S-P bands, masses and discontinuous seams containing 50% pyrite. Maximum width is 20 cm - grey dusty appearance. 5% light grey quartz ankerite veinlets parallel to foliation.					
	358.50 to 359.50	20% Q-S-P bands, discontinuous, also 2-3% disseminated pyrite external to bands in quartz sericite schist.					
	359.50 to 360.50	3-5% Q-S-P bands, lenses. Strong foliation formed by parallel alignment of sericite wisps at 45° to the C.A.					
	360.50 to 361.50	Last 50 cm of sample contains 40% Q-S-P bands, masses and discontinuous lenses oriented parallel to foliation, at 50° to the C.A. Moderately sericitic. Q-S-P masses dusty grey in appearance.					
	361.50 to 362.50	40% Q-S-P bands and masses.					
	362.50 to 363.85	5-7% Q-S-P masses and bands. Last 30 cm strongly sericitic and sheared at 65° to the C.A.					
	363.85 to 364.35	Sharp change to weakly sericitic, well foliated tuff. Medium grey, 2% white quartz veinlets. Trace pyrite.					
	363.85 to 364.35	Trace pyrite, 2% Quartz veinlets.					
364.35	366.37	<b>FELSIC QUARTZ CRYSTAL TUFF</b> Massive to weakly locally foliated, very weakly sericitic. Grey, siliceous. Sharp upper contact at 364.35 meters. Trace pyrite.	20250	365.70	366.37	0.67	0

TOTAL ENERGO GOLD CORPORATION

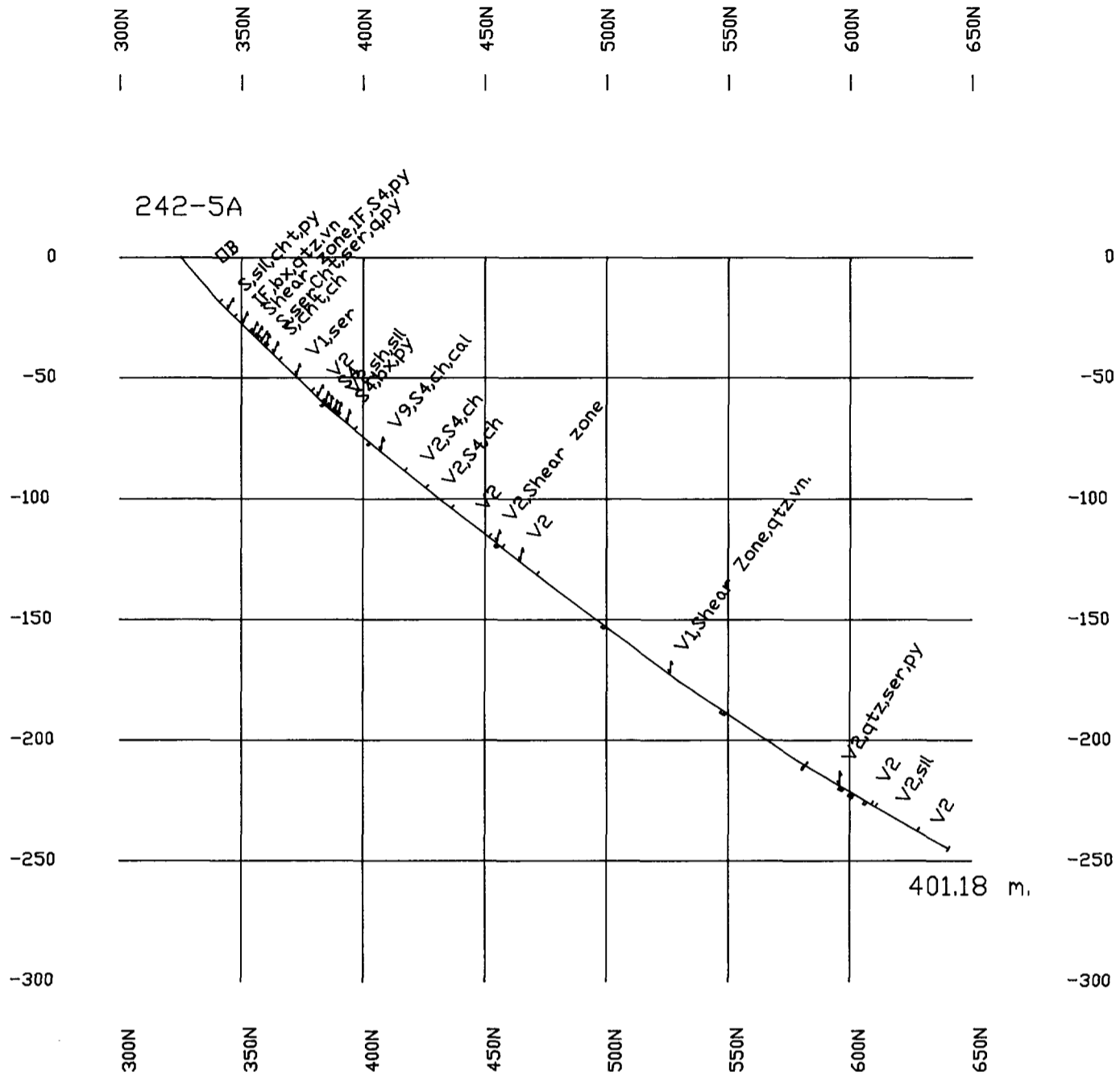
HOLE NO: 242-05A

Page No: 29 of 29

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		365.70 to 366.37 10% quartz veining, minor sericitic wallrock. Marking lower contact of crystal tuff with massive rhyolite.					
366.37	386.30	<b>MASSIVE QUARTZ EYE RHYOLITE TO RHYODACITE FLOWS</b> Massive, grey siliceous flows, 1-5% 1-2 mm grey quartz eyes, occasional rare feldspar crystal in this uniform section. Occasional cube of pyrite. Not altered.	20251	377.90	379.20	1.30	0
		377.90 to 379.20 5% white quartz veining with weakly sericitic wallrock and inclusions. <1% minor quartz-sericite-pyrite masses and lenses.					
386.30	401.18	<b>DACITE</b> Massive, light greyish green. Consists of 20% quartz and 10% feldspar grains set in a fine grained to aphanitic matrix of quartz, feldspar and minor sericite. Hard, nil pyrite, no fracturing. Minor calcite veining. Becoming coarser grained down the hole.					
	401.18	<b>END OF HOLE</b>					

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**LEGEND**

**VOLCANICS**

- V2 Felsic
- V4 Intermediate
- V7 Basalt
- V9 Tuff
- V10 Agglomerate

**SEDIMENTS**

- S3 Graywacke
- S4 Argillite

**INTRUSIVES**

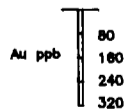
- 1R Felsic
- D6 Diabase

- ob overburden
- ft fault
- bx breccia
- p pillowed
- qv quartz vein

- gf graphite
- ser sericite
- fc fuchsite
- cb carbonatized
- al silicified
- sl slightly
- alt altered

- po pyrrhotite
- py pyrite
- aspy arsenopyrite
- mt magnetite
- Fe iron tholeiite

- IP Induced Polarization Anomaly

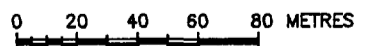


**TOTAL ENERGOLD CORPORATION**

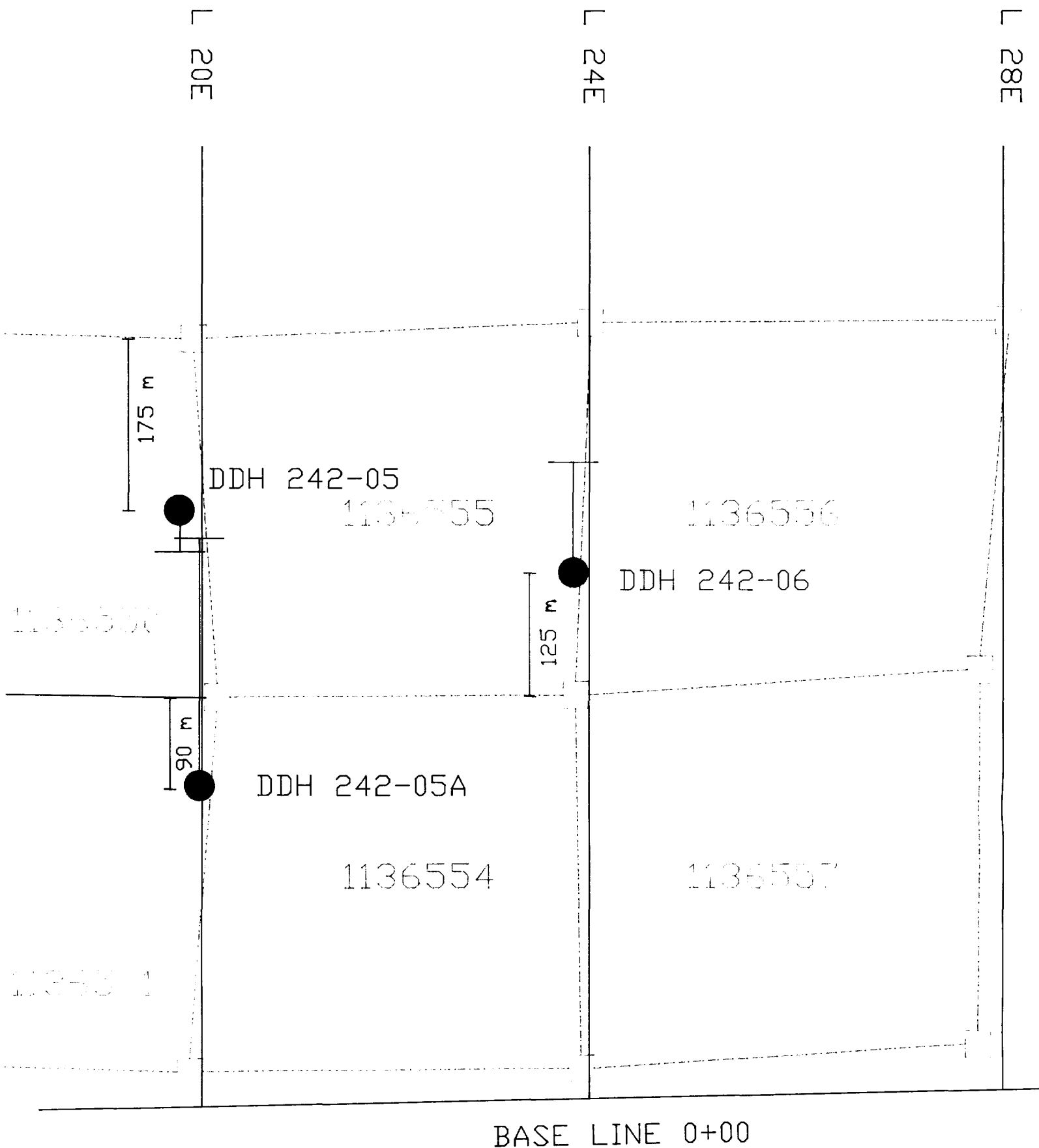
**ST. LAURENT**

242-5A  
Section 20+00 E  
Facing West

Drawn: J.M.P.	Checked: JMP	Scale: 1:2500	Drawing: SL-5A
Date: March, 1991	Revised: March, 1991	Province: Ontario	NTS: 32 E/5





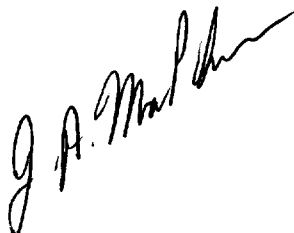


<b>TOTAL ENERGOLD CORPORATION</b>			
<b>ST. LAURENT</b>			
<b>LOCATION MAP</b>			
<b>DDH 242-06</b> <i>JMP.</i>			
Drawn: J.M.P.	Checked: JMP	Scale: 1:5000	Drawing: SL6LOC
Date: March, 1991	Revised: March, 1991	Province: Ontario	NTS: 32 E/5
0    50    100    150    200 METRES 			

TOTAL ENERGO GOLD CORPORATION

DIAMOND DRILL RECORD

Co-ords: 525N Section: L2400E HOLE NO: 242-06  
Bearing: 360° Core Size: BQ Property: St. Laurent  
Dip: -45° Grid System: Location: St. Laurent Twp.  
Elevation: Claim: 1136555  
Length: 256.36 Date Started: Feb. 23, 1991  
Measurement: metres Date Completed: Feb. 25, 1991  
Comments: Logged By: Joe MacPherson



Depth	Azimuth	Dip	Depth	Azimuth	Dip	Depth	Azimuth	Dip
30.49		-42°	182.93		-31°			
121.95		-34°	254.88		-28°			

LOG SUMMARY

FROM	TO	LITHOLOGY
0.00	29.87	OVERBURDEN
29.87	74.98	FELSIC VOLCANIC FLOWS: MASSIVE APHANITIC RHYOLITE
74.98	78.30	PYRITIC INTERFLOW SILICEOUS METASEDIMENTS
78.30	89.77	MASSIVE TO WEAKLY FOLIATED RHYOLITE FLOWS, MINOR TUFFS
89.77	98.66	STRONGLY DEFORMED AND SERICITIZED FELSIC TUFFS: SHEAR ZONE
98.66	102.71	MASSIVE QUARTZ EYE RHYOLITE
102.71	110.88	STRONGLY DEFORMED AND SERICITIC FELSIC TUFFS
110.88	133.77	QUARTZ EYE RHYOLITE
133.77	144.75	SHEAR ZONE: MODERATE QUARTZ SERICITE SCHIST
144.75	169.50	FELSIC VOLCANIC FLOWS: RHYOLITE, QUARTZ EYE RHYOLITE
169.50	256.36	SULPHIDE-BEARING FELSIC VOLCANIC FLOWS
	256.36	END OF HOLE

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-06

Page No: 2 of 5

FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
0.00	29.87	<b>OVERBURDEN</b> Sand, clay, gravel, boulders on bedrock.					
29.87	74.98	<b>FELSIC VOLCANIC FLOWS: MASSIVE APHANTIC RHYOLITE</b> Dark grey, hard, massive and aphanitic, to locally weakly foliated at 50 to 60° to the C.A. Rare weakly sericitic slip. Strong chlorite-filled fracture set, at 60 to 70° to the C.A., opposite to the foliation, at a low angle to the C.A. This translates to a fairly flat fracture set in the rock. Weak set of calcitic fractures at random angles to the C.A.  50.65 to 51.00 Broken rock and minor fault gouge.  71.30 to 74.98 Felsic lapilli tuff. Homolithic. Angular fragments up to 5 cm size set in a chloritic matrix.					
74.98	78.30	<b>PYRITIC INTERFLOW SILICEOUS METASEDIMENT</b> A black, siliceous, weakly bedded sediment hosts up to 60 cm of semi-massive pyrite. Bedding is at 60° to the C.A. Pyrite occurs massive within bands up to 1 cm wide, and also occurs semi-massive within a black siliceous gangue. Weakly chloritic, 1 % late white quartz veining.  74.98 to 75.82 75% pyrite in siliceous gangue.  75.82 to 76.80 Fine-bedded tuff to lapilli tuff. Minor sulphides in matrix of lapilli tuff.  76.80 to 78.30 30% pyrite as masses and hosted by black siliceous gangue.	20724 20725 20726	74.98 75.82 76.80	75.82 76.80 78.30	0.84 0.98 1.50	0 0 0
78.30	89.77	<b>MASSIVE TO WEAKLY FOLIATED RHYOLITE FLOWS, MINOR TUFFS</b> Grey to grey green, weakly pervasively sericitic. Below 87 meters, sericite becomes more prominent in thin slips at 55° to the C.A. 5% black irregular fractures throughout section. Minor pyrite in black siliceous gangue, similar to massive pyrite above.					

TOTAL ENERGOLD CORPORATION

HOLE NO: 242-06

Page No: 3 of 5

FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
89.77	98.66	<b>STRONGLY DEFORMED AND SERICITIZED FELSIC TUFFS: SHEAR ZONE</b> Strongly foliated at 65° to the C.A., locally foliation is deformed to 30° to the C.A. Numerous thin sericitic and chloritic wisps. Minor pyrite locally hosted by a black quartz gangue.	20727	90.60	91.75	1.15	0
		90.60 to 91.75 Strong sericite schist hosting 5% black quartz-pyrite lenses and irregular wisps.					
		After 91.75 meters, the core is very sericitic and takes on a waxy green colour, with 3% irregular black quartz ankerite stringers hosting trace pyrite.					
		96.80 to 97.40 5% pyrite in light grey quartz masses.					
98.66	102.71	<b>MASSIVE QUARTZ EYE RHYOLITE</b> Medium grey, massive. 75% tightly packed quartz crystal in a fine-grained to aphanitic. Occasional chloritic fracture.					
102.71	110.88	<b>STRONGLY DEFORMED AND SERICITIC FELSIC TUFFS</b> As above, locally intense sericite development reflecting strong shearing over 1-5 cm. Core angles vary from 35 to 60° to the C.A. The shearing in this hole is different from that intersected in previous holes - the degree of deformation in the from of slumping of foliation bands to subparallel to the C.A.					
110.88	133.77	<b>QUARTZ EYE RHYOLITE</b> 25% grey quartz eyes set in a fine grained to aphanitic siliceous matrix. Weak foliation at 45° to the C.A. developing towards the lower contact.					
133.77	144.75	<b>SHEAR ZONE: MODERATE QUARTZ SERICITE SCHIST</b> Moderate development of sericite along foliation planes oriented at 55 to 60° to the C.A. Upper and lower contacts marked by quartz veining and fault gouge. Host rock may still be the massive quartz eye rhyolite - a few					

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-06

Page No: 4 of 5

FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		quartz eyes are visible. Outside of the schistose sections, the core is massive, grey and hard.					
		133.77 to 134.55 Upper contact of shear zone. 40 cm of broken white quartz with numerous chloritic inclusions and slips parallel to vein contacts.					
		144.25 to 144.75 As above, at lower contact of shear zone. 1-2% pyrite along chloritic slips.					
144.75	169.50	<b>FELSIC VOLCANIC FLOWS: RHYOLITE, QUARTZ EYE RHYOLITE</b> Massive, aphanitic rhyolite flows, locally quartz eye bearing, silicified. Very hard, light to medium grey. 1% irregular fracturing, trace disseminated pyrite.					
		153.60 to 154.64 Strong shear zone. 60 cm of recemented fault gouge consisting of sericite, quartz fragments and minor chlorite and clay. Trace pyrite, minor white quartz veining.					
		153.60-154.64 As above.					
		The felsic flows below the fault zone continue to be massive, with trace pyrite, light to medium grey.					
		161.17 to 162.33 Intense silica flooding over 20 cm, minor less intense flooding elsewhere in section. Trace pyrite and chalcopyrite in zones of silica flooding.					
		161.17 to 162.33 As above.					
169.50	256.36	<b>SULPHIDE-BEARING FELSIC VOLCANIC FLOWS.</b> Similar to section above, except for the gradual increase in sulphide content to an average of 1%. The sulphides, predominantly pyrite with minor chalcopyrite, are associated with mafic mineral aggregates, mainly chlorite, scattered randomly throughout the core. The rock has a light green tinge due to pervasive but weak sericite alteration.					
		The rock is massive, very siliceous (and hard), light grey with a distinctive light green tinge and a botchy appearance due to these mafic					

TOTAL ENERGO GOLD CORPORATION

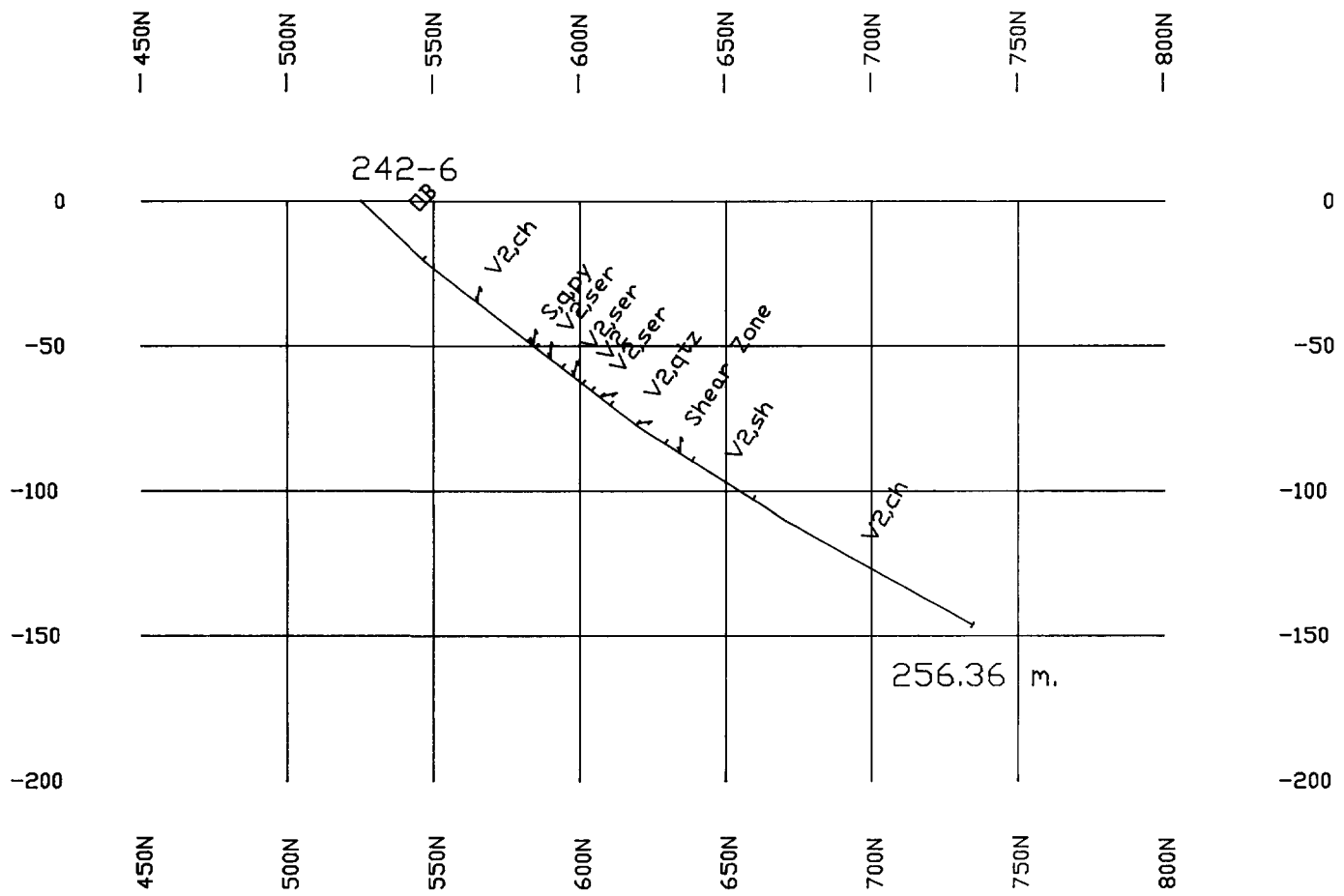
HOLE NO: 242-06

Page No: 5 of 5

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FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		mineral aggregates. The rock hosts 1% black irregular fractures, which in turn host some pyrite.					
	169.50 to 171.00	1% disseminated pyrite, trace chalcopyrite.					
	171.00 to 172.52	As above.					
	172.52 to 174.02	As above.					
	174.50 to 175.57	As above.					
256.36		<b>END OF HOLE</b>					

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**LEGEND**

**VOLCANICS**

- V2 Felsic
- V4 Intermediate
- V7 Basalt
- V9 Tuff
- V10 Agglomerate

**SEDIMENTS**

- S3 Graywacke
- S4 Argillite

**INTRUSIVES**

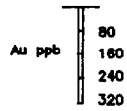
- 1R Felsic
- Db Diabase

- ob overburden
- ft fault
- bx breccia
- p pillowed
- qv quartz vein

- gf graphite
- ser sericite
- fc fuchsite
- ob carbonatized
- sil silicified
- alt altered

- po pyrrhotite
- py pyrite
- aspy arsenopyrite
- mt magnetite
- Fe iron thioalite

IP Induced Polarization Anomaly



**TOTAL ENERGOLD CORPORATION**

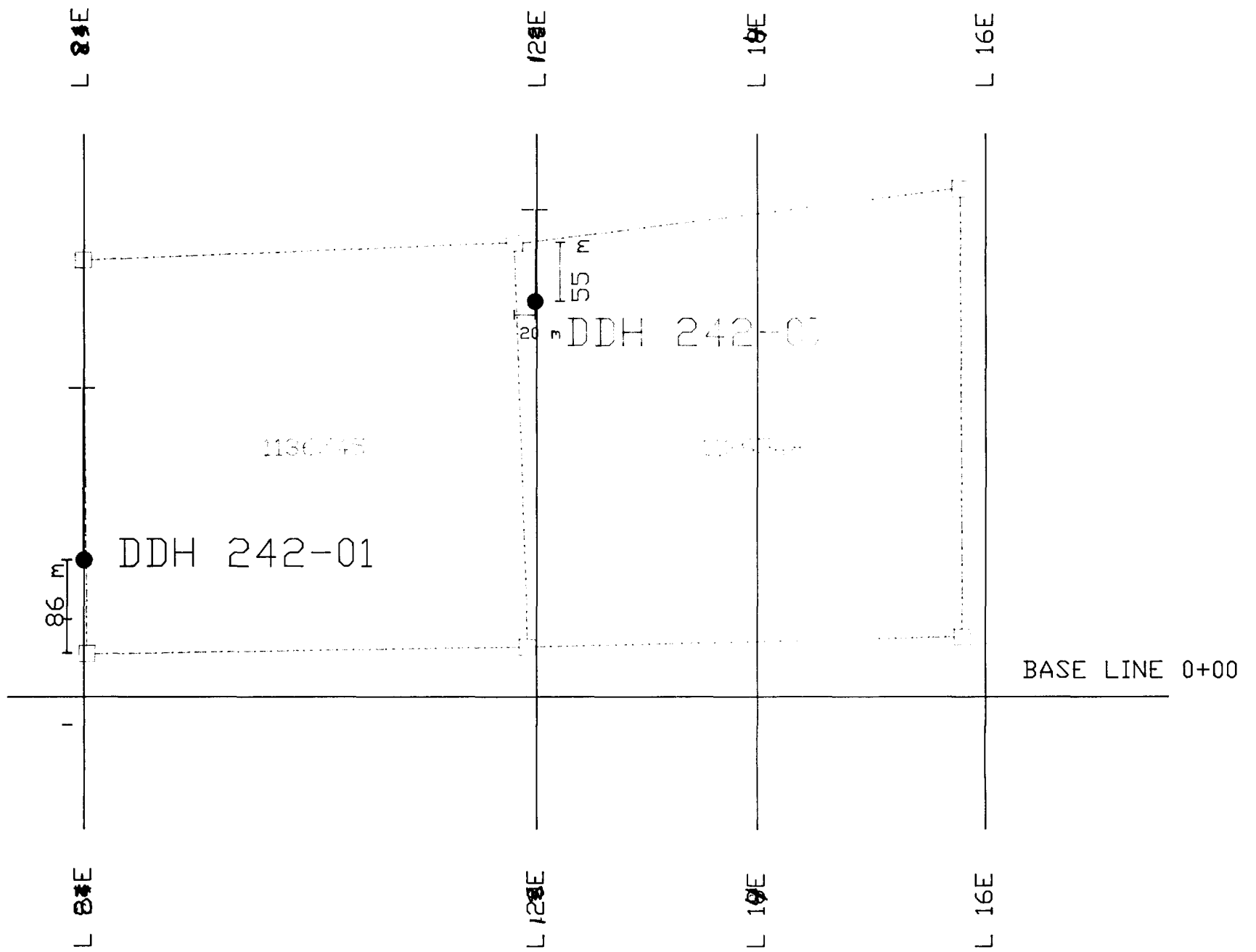
**ST. LAURENT**

**DDH 242-6  
Section 24+00 E  
Facing West**

*J.M.P.*

Drawn: J.M.P.	Checked: JMP	Scale: 1:2500	Drawing: SL-8
Date: March, 1991	Revised: March, 1991	Province: Ontario	NTS: 32 E/5

0 20 40 60 80 METRES



TOTAL ENERGOLD CORPORATION

ST. LAURENT

LOCATION MAP

DDH 242-07

Drawn: J.M.P.	Checked: J.M.P.	Scale: 1:5000	Drawing: SL7-LDC
Date: March, 1991	Revised: April, 1991	Province: Ontario	NTS: 32 E/5





TOTAL ENERGOLD CORPORATION

DIAMOND DRILL RECORD

Co-ords: 325N Section: L1200E HOLE NO: 242-07  
Bearing: 360° Core Size: BQ Property: St. Laurent  
Dip: -45° Grid System: Location: St. Laurent Twp.  
Elevation: Claim: 1136548  
Length: 143.90 Date Started: Feb. 23, 1991  
Measurement: metres Date Completed: Feb. 25, 1991  
Comments: Logged By: Joe MacPherson

*J. A. MacPherson*

Depth Azimuth Dip Depth Azimuth Dip Depth Azimuth Dip

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LOG SUMMARY

FROM	TO	LITHOLOGY
0.00	20.43	OVERBURDEN
20.43	24.20	FELSIC LAPILLI TUFF
24.20	68.30	INTERMEDIATE LAPILLI TUFF, CRYSTAL TUFF
68.30	81.08	QUARTZ VEINED GRAPHITIC SHEAR ZONE
81.08	143.90	MASSIVE, FINE-GRAINED, ALTERED INTERMEDIATE TO MAFIC METAVOLCANIC FLOWS
	143.90	END OF HOLE

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TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-07

Page No: 2 of 4

FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
0.00	20.43	<b>OVERBURDEN</b> Clay, sand, gravel, boulders near bedrock.					
20.43	24.20	<b>FELSIC LAPILLI TUFF</b> Light grey, clast supported, well sorted, with 2 cm subrounded felsic clasts dominating this rock. Clast compositions are massive aphanitic to feldspar phyric, with minor quartz eye rhyolite and sulphide clasts. Matrix is dark grey to black, soft, and unaltered.	20728	23.17	24.20	1.03	0
24.20	68.30	<b>INTERMEDIATE LAPILLI TUFF, CRYSTAL TUFF</b> Weakly to moderately sericitic, clasts are mainly intermediate to felsic volcanic, moderately soft. Upper contact broken and quartz veined from 23.17 to 24.20 meters. Minor interbedded quartz crystal tuff. Clast size varies from a few mm to > 5 cm, and are generally subrounded. A few sulphide clasts present, notably at 37.00 meters. Pyrite occurs in narrow sections with dusty grey quartz in wispy stringers parallel to foliation formed by sericite, at 55° to the C.A.  23.17 to 24.20 Broken and quartz veined contact between felsic and intermediate crystal tuff.  29.00 to 29.80 Mainly quartz crystal tuff, thinly bedded, strongly foliated at 55° to the C.A., 3-5% pyrite as clasts and in wispy dusty grey quartz stringers.  36.83 to 37.56 Large sulphide clast at 37.00 meters, partially altered to limonite.  Below 38 meters, the matrix to the tuff is locally argillaceous. 5% felsic clasts, 1% sulphide clasts. Unit grades downhole from interbedded lapilli and bedded tuff to predominantly thinly bedded, finer grained tuff with up to 15% coarse (> 2 cm) felsic to intermediate clasts. Weak pervasive sericite to 44.50 meters, patchy sericite sections below this point. Unit becomes strongly foliated at 55° to the C.A. after 66 meters.	20729 20730	29.00 36.83	29.80 37.56	0.80 0.73	0 0

TOTAL ENER GOLD CORPORATION

HOLE NO: 242-07

Page No: 3 of 4

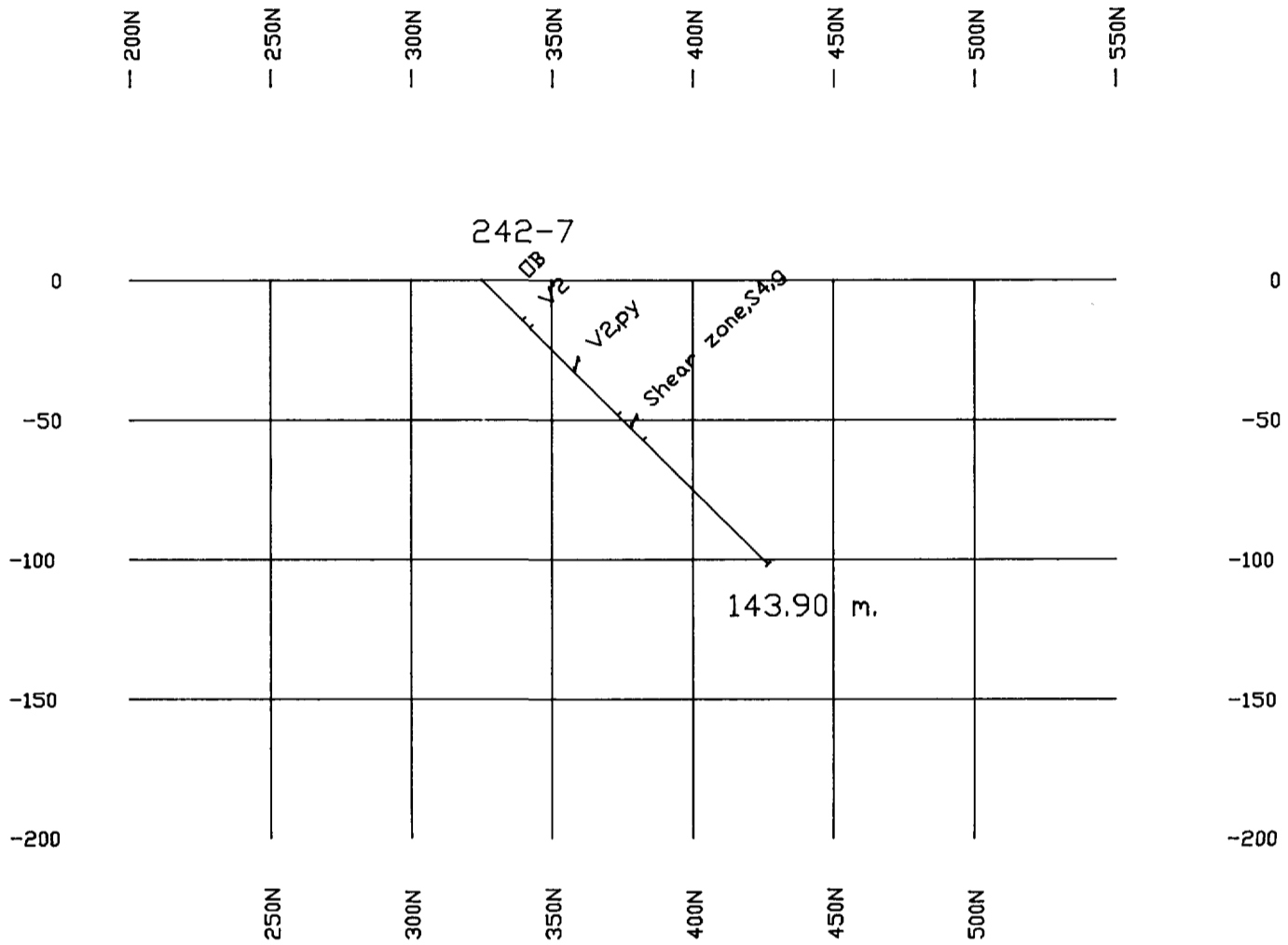
FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
68.30	81.08	<b>QUARTZ VEINED GRAPHITIC SHEAR ZONE</b>	20731	68.30	68.90	0.60	0
			20732	68.90	69.50	0.60	0
		Sharp upper contact with 50 cm of graphitic fault gouge. Host rock to the shear zone is a finely bedded tuff or argillite. Foliation is strong and locally deformed, from an average of 55° to the C.A. to less than 10° to the C.A. Minor sericite present throughout as irregular wisps and masses, becoming more prominent near vein margins. White quartz veins make up 60% of the rock by volume. Contacts are irregular and broken. Graphitic slips and sulphide-rich wallrock inclusions common. The latter are hematitic locally.	20733	69.50	71.06	1.56	0
			20734	71.06	72.30	1.24	0
			20735	72.30	73.35	1.05	0
			20736	73.35	74.98	1.63	0
			20737	74.98	76.60	1.62	0
			20738	76.60	78.03	1.43	0
			20739	78.03	79.40	1.37	0
			20740	79.40	80.37	0.97	0
			20741	80.37	81.08	0.71	0
		68.30 to 68.90 Graphitic fault gouge, unconsolidated.					
		68.30 to 68.90 As above.					
		68.90 to 76.60 15% white quartz veining with graphitic slips and graphite-pyrite wallrock inclusions. Foliation strong and slumped locally parallel to the C.A. 1% pyrite overall.					
		68.90 to 69.50 20% white quartz veining, as several 5-8 cm veinlets at 80° to the C.A. Trace pyrite. Minor fault gouge associated with vein.					
		69.50 to 71.06 5% white quartz veining, strongly deformed foliation.					
		71.06 to 72.30 1% white quartz veining, trace pyrite.					
		72.30 to 73.35 20% white quartz veining, intruding subparallel to C.A. Numerous pyrite-graphite seams within veins and along vein margins. 2-3% pyrite overall.					
		73.35 to 74.98 Strong foliation at 65° to the C.A. 10% white quartz veining. 3% sulphide, locally semi-massive over 1-2 cm.					
		74.98 to 76.60 15% white irregular quartz veining, largest vein 10 cm, at 80° to C.A. Trace pyrite in weakly sericitic wallrock.					
		76.60 to 80.37 Main vein zone. 80% white					

TOTAL ENERGO GOLD CORPORATION

HOLE NO: 242-07

Page No: 4 of 4

FROM	TO	DESCRIPTION	SAMPLE #	FROM	TO	LENGTH	Au (ppb)
		quartz veining with numerous irregular graphite and graphite-pyrite wisps and inclusions. Local semi-massive pyrite masses within veins are partially hematitic.					
		76.60 to 78.03 70% white quartz veining. Pyrite wallrock and inclusions. 2% pyrite overall.					
		78.03 to 79.40 100% white quartz veining, with 10% pyrite-graphite masses and wisps.					
		79.40 to 80.37 90% white quartz veining with strong graphitic slips at 35° to the C.A. Strongly pyritic wallrock to lower contact.					
		80.37 to 81.08 20% low-angle quartz veining, with pyritic wallrock margins.					
		80.37 to 81.08 As above.					
81.08	143.90	<b>MASSIVE, FINE-GRAINED, ALTERED INTERMEDIATE TO MAFIC METAVOLCANIC FLOWS</b> Medium grey with a light green tinge, moderately soft, patchy sericite, 5% dark grey irregular crackle fracture, locally broken and quartz veined (5%). Trace disseminated cubic pyrite. 5-10 cm sections of flow-top breccia, variably sericitized and hosted by a black siliceous gangue.	20742	82.08	83.43	1.35	0
		82.08 to 83.43 15% white quartz veining. Section contains a 5 cm pyritic flow top in a black quartz gangue.					
143.90		<b>END OF HOLE</b>					



**LEGEND**

**VOLCANICS**

V2 Felak  
 V4 Intermediate  
 V7 Basalt  
 V9 Tuff  
 V10 Agglomerate

**SEDIMENTS**

S3 Greywacke  
 S4 Argillite

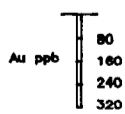
**INTRUSIVES**

1R Felak  
 Db Diabase

ob overburden  
 ft fault  
 bx breccia  
 p pillowed  
 qv quartz vein

gr graphite  
 ser sericite  
 fc fuchsite  
 cb carbonatized  
 al alitic  
 sl slightly  
 alt altered

po pyrrhotite  
 py pyrite  
 aspy arsenopyrite  
 mt magnetite  
 Fe iron tholeiite  
 IP Induced Polarization Anomaly



**TOTAL ENERGOLD CORPORATION**

**ST. LAURENT**

DDH 242-7  
 Section 12+00 E  
 Facing West

*J.M.P.*

Drawn: J.M.P.	Checked: JMP	Scale: 1:2500	Drawing: SL-7
Date: March, 1991	Revised: March, 1991	Province: Ontario	NTS: 32 E/5

0 20 40 60 80 METRES





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Assaying - Consulting - Representation

## Geochemical Analysis Certificate

1W-2430-RG1

Company: **TOTAL ENERGOLD CORP.**

Date: **MAR-13-91**

Project:

Copy 1. P.O. BOX 1720 S. PORCUPINE ONT.

Attn:

*We hereby certify* the following Geochemical Analysis of 7 CORE samples submitted FEB-27-91 by .

Sample Number	Au ppb	As ppm
20721	Nil	10
20722	Nil	19
20723	Nil	11
20724	Nil	60
20725	Nil	12
20726	Nil	26
20727	Nil	13

Certified by *Donna Levin*



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Page 1 of 3

## Geochemical Analysis Certificate

1W-2479-RG1

Company: **TOTAL ENERGOLD CORP.**  
Project: 242  
Attn: **JOE MACPHERSON**

Date: **MAR-14-91**

Copy 1. P.O. BOX 1720, SOUTH PORCUPINE, ONT. P0N1H0  
2. FAX TO 235-2257

We hereby certify the following Geochemical Analysis of 67 ROCK samples submitted MAR-11-91 by JOE MACPHERSON.

Sample Number	Au ppb	As ppm
20667	14	
20668	Nil	
20669	24	
20670	Nil	
20671	21/14	
20672	Nil	
20674	Nil	
20675	Nil	
20676	17	
20677	Nil	
20678	Nil	
20679	10/7	
20680	Nil	
20681	Nil	
20682	Nil	
20683	Nil	
20684	Nil	
20685	Nil	
20686	Nil	
20687	Nil/Nil	
20688	Nil	
20689	Nil	
20690	Nil	
20691	Nil	
20692	Nil	
20693	10/17	
20694	Nil	
20695	Nil	
20696	Nil	
20697	Nil	

Certified by Wonna Gardner





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## Geochemical Analysis Certificate

1W-2479-RG1

Company: **TOTAL ENERGOLD CORP.**  
Project: 242  
Attn: JOE MACPHERSON

Date: MAR-14-91

Copy 1. P.O.BOX 1720,SOUTH PORCUPINE,ONT.P0N1H0  
2. FAX TO 235-2257

We hereby certify the following Geochemical Analysis of 67 ROCK samples submitted MAR-11-91 by JOE MACPHERSON.

Sample Number	Au ppb	As ppm
20698	Nil	
20699	Nil	
20700	Nil	
20701	Nil	
20702	Nil	
20703	Nil	
20704	Nil	
20705	Nil	
20706	Nil	
20707	Nil/Nil	
20708	Nil	
20709	Nil	
20710	31	
20711	Nil	
20712	Nil	
20713	Nil	
20714	34	
20715	45/51	
20716	not rec'd	
20717	82/89	
20718	72	
20719	Nil	
20720	Nil	
20728	Nil	
20729	Nil	
20730	Nil	
20731	Nil	
20732	Nil	
20733	Nil	
20734	Nil	

Certified by Donna Gardner



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## Geochemical Analysis Certificate

1W-2479-RG1

Company: **TOTAL ENERGOLD CORP.**  
Project: 242  
Attn: **JOE MACPHERSON**

Date: **MAR-14-91**  
Copy 1. P.O.BOX 1720,SOUTH PORCUPINE,ONT.P0N1H0  
2. FAX TO 235-2257

We hereby certify the following Geochemical Analysis of 67 ROCK samples submitted MAR-11-91 by JOE MACPHERSON.

Sample Number	Au ppb	As ppm
20735	Nil	
20736	Nil	
20737	Nil	
20738	Nil	
20739	Nil	
20740	Nil / Nil	
20741	Nil	
20742	Nil	

Certified by Donna Gardner



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## Geochemical Analysis Certificate

1W-2478-RG1

Company: **TOTAL ENERGO GOLD CORP.**  
Project: 242  
Attn: JOE MACPHERSON

Date: MAR-14-91

Copy 1. P.O. BOX 1720, SOUTH PORCUPINE, ONT. P0N1H0  
2. FAX TO 235-2257

We hereby certify the following Geochemical Analysis of 51 ROCK samples submitted MAR-11-91 by JOE MACPHERSON.

Sample Number	Au ppb	As ppm
20235	10	
20236	10	
20237	Nil	
20238	Nil	
20239	Nil	
20240	14	
20241	14/17	
20259	Nil	
20260	Nil	
20261	7	
20262	Nil	
20263	Nil	
20264	Nil	
20265	Nil	
20266	Nil	
20267	Nil	
20268	Nil	
20269	14/14	
20270	Nil	
20271	Nil	
20272	Nil	
20273	Nil	
20274	Nil	
20275	Nil	
20276	Nil / Nil	
20277	Nil	
20278	Nil	
20279	Nil	
20280	Nil	
20281	Nil	

Certified by Donna Gardner



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## Geochemical Analysis Certificate

1W-2344-RG1

Company: **TOTAL ENERGOLD**  
Project: **ST. LAURENT**  
Attn: **J. MACPHERSON**

Date: FEB-21-91  
Copy 1. P.O.BOX 1720,SOUTH PORCUPINE,ONT  
2. FAX TO 235-2257

We hereby certify the following Geochemical Analysis of 116 CORE samples submitted FEB-18-91 by J. MACPHERSON.

Sample Number	Au ppb	Cu ppm	Zn ppm
20078	Nil		
20079	Nil		
20080	Nil		
20081	Nil		
20082	Nil		
20083	10		
20084	Nil		
20085	7/14		
20086	Nil		
20087	Nil		
20088	Nil		
20089	Nil		
20090	Nil		
20091	Nil		
20092	Nil		
20093	Nil		
20094	Nil		
20095	Nil		
20096	Nil		
20097	Nil		
20098	Nil/Nil		
20099	Nil		
20100	Nil		
20101	Nil		
20102	Nil		
20103	Nil		
20104	Nil		
20105	Nil		
20106	Nil		
20107	Nil		

Certified by Sonja Henderson



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## Geochemical Analysis Certificate

1W-2344-RG1

Company: **TOTAL ENERGOLD**  
Project: **ST. LAURENT**  
Attn: **J. MACPHERSON**

Date: FEB-21-91  
Copy 1. P.O.BOX 1720, SOUTH PORCUPINE, ONT  
2. FAX TO 235-2257

We hereby certify the following Geochemical Analysis of 116 CORE samples submitted FEB-18-91 by J. MACPHERSON.

Sample Number	Au ppb	Cu ppm	Zn ppm
20139	Nil		
20140	Nil		
20141	Nil		
20142	Nil		
20143	7/7		
20144	Nil		
20145	Nil		
20146	Nil		
20147	Nil		
20148	Nil		
20149	Nil		
20150	Nil		
20151	Nil		
20152	Nil		
20153	Nil		
20154	Nil		
20155	Nil		
20156	Nil		
20157	10		
20158	10/14		
20159	Nil		
20160	Nil		
20161	Nil		
20162	Nil		
20163	Nil		
20164	Nil		
20165	Nil		
20166	Nil		
20167	7/10		
20168	Nil		

Certified by Donna Gardner



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## Geochemical Analysis Certificate

1W-2344-RG1

Company: **TOTAL ENERGOLD**  
Project: **ST. LAURENT**  
Attn: **J. MACPHERSON**

Date: FEB-21-91  
Copy 1. P.O.BOX 1720,SOUTH PORCUPINE,ONT  
2. FAX TO 235-2257

We hereby certify the following Geochemical Analysis of 116 CORE samples submitted FEB-18-91 by J. MACPHERSON.

Sample Number	Au ppb	Cu ppm	Zn ppm
20169	Nil		
20170	Nil		
20171	Nil		
20172	Nil		
20173	Nil		
20174	Nil		
20175 not rec'd			
20176	Nil		
20177	Nil		
20178	Nil		
20179	Nil		
20180	Nil		
20181	Nil		
20182	Nil		
20601	Nil	9	62
20602	Nil	9	85
20603	Nil	30	56
20604	Nil	49	74
20605	7/10	19	70
20606	Nil	26	68
20607	Nil	25	85
20608	Nil	31	80
20609	Nil	27	79
20610	Nil	39	90
20611	10/10	28	79
20612	Nil	29	81
20613	Nil	27	63

Certified by Wonna Gardner



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## Geochemical Analysis Certificate

1W-2451-RG1

Company: **TOTAL ENERGOLD CORP.**  
Project: **242**  
Attn: **JOE MACPHERSON**

Date: **MAR-08-91**  
Copy 1. P.O. BOX 1720, SOUTH PORCUPINE, ONT P0N1H0

We hereby certify the following Geochemical Analysis of 62 ROCK samples submitted MAR-06-91 by JOE MACPHERSON.

Sample Number	Au ppb	As ppm
20183	Nil	
20184	Nil	
20185	Nil/Nil	
20186	Nil	
20187	Nil	
20188	Nil	
20189	Nil	
20190	Nil	
20191	Nil	
20192	Nil	
20193	7	
20194	7	
20195	Nil	
20196	Nil	
20197	Nil	
20198	Nil	
20199	Nil	
20200	Nil/Nil	
20201	Nil	
20202	Nil	
20203	Nil	
20204	Nil	
20205	Nil	
20206	Nil	
20207	Nil	
20208	Nil	
20209	Nil	
20210	Nil	
20211	Nil/Nil	
20212	Nil	

Certified by Donna Gordon



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## Geochemical Analysis Certificate

1W-2451-RG1

Company: **TOTAL ENERGOLD CORP.**  
Project: 242  
Attn: **JOE MACPHERSON**

Date: MAR-08-91

Copy 1. P.O.BOX 1720,SOUTH PORCUPINE,ONT P0N1H0

We hereby certify the following Geochemical Analysis of 62 ROCK samples submitted MAR-06-91 by JOE MACPHERSON.

Sample Number	Au ppb	As ppm
20213	Nil	
20214	Nil	
20215	Nil	
20216	Nil	
20217	Nil	
20218	Nil	
20219	Nil	
20220	Nil	
20221	Nil	
20222	Nil	
20223	17/7	
20224	Nil	
20225	Nil	
20226	Nil	
20227	Nil	
20228	Nil	
20229	Nil	
20230	Nil	
20231	Nil	
20232	Nil	
20233	Nil	
20234	Nil	
20242	Nil	
20243	Nil	
20244	Nil	
20245	Nil	
20246	Nil	
20247	10/21	
20248	Nil	
20249	Nil	

Certified by Donna Gardner





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Page 3 of 3

1W-2451-RG1

## Geochemical Analysis Certificate

Company: **TOTAL ENERGOLD CORP.**  
Project: 242  
Attn: **JOE MACPHERSON**

Date: **MAR-08-91**

Copy 1. P.O. BOX 1720, SOUTH PORCUPINE, ONT P0N1H0

We hereby certify the following Geochemical Analysis of 62 ROCK samples submitted MAR-06-91 by JOE MACPHERSON.

Sample Number	Au ppb	As ppm
20250	Nil	
20251	Nil	

Certified by *L. Sonna Davener*

P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244. FAX (705) 642-3300



# Swastika Laboratories

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## Geochemical Analysis Certificate

1W-2430-RG1

Company: **TOTAL ENERGOLD CORP.**

Date: MAR-01-91

Project: 242  
Attn:

Copy 1. P.O. BOX 1720 S. PORCUPINE ONT.

We hereby certify the following Geochemical Analysis of 7 CORE samples submitted FEB-27-91 by .

Sample Number	Au ppb	As ppm
20721	Nil	
20722	Nil	
20723	Nil	
20724	Nil	
20725	Nil	
20726	Nil	
20727	Nil	

Certified by Donna Gardner



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Page 1 of 2

## Geochemical Analysis Certificate

1W-2406-RG1

Company: **TOTAL ENERGO**  
Project: 242  
Attn: MR. J. MACPHERSON

Date: MAR-13-91  
Copy 1. 68 BRUCE AVE., SOUTH PORCUPINE, ONT  
2. FAX TO 235-2257

We hereby certify the following Geochemical Analysis of 53 CORE samples submitted FEB-22-91 by J. MACPHERSON.

Sample Number	Au ppb	As ppm	Cu ppm	Zn ppm
20614	Nil / 7		25	46
20615	7		60	58
20616	10		31	62
20617	Nil		26	59
20618	Nil		39	68
20619	10		23	67
20620	7		30	66
20621	Nil		19	57
20622	Nil		61	92
20623	17	40	9	45
20624	Nil	22	6	26
20625	Nil	19	5	19
20626	Nil	4	8	33
20627	Nil	2	7	30
20628	Nil	2	8	27
20629	Nil / Nil	2	11	25
20630	Nil	14	5	25
20631	Nil	9	8	27
20632	Nil	23	9	40
20633	Nil	23	6	35
20634	Nil	36	71	34
20635	Nil	20	62	67
20636	10	19	29	31
20637	7	35	144	111
20638	17	20	74	137
20639	Nil	29	135	125
20640	14 / 10	40	164	26
20641	10	9	75	25
20642	14	20	101	27
20643	Nil	17	126	22

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0  
Telephone (705) 642-3244. FAX (705) 642-3300



Swastika Laboratories  
 P.O. Box 10  
 Swastika, Ontario  
 P0K 1T0

**INVOICE**

NO: 24337

DATE: 02-21-91

PAGE: 1 of 1

GST Registration Number: R 100294743

SHIP TO:

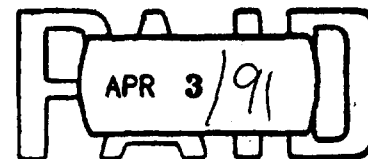
SOLD TO:

Total Energold  
 68 Spruce Ave  
 South Porcupine, Ontario  
 P0N1H0

Same

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	F	P	UNIT PRICE	AMOUNT
T325	116	1	Au Assays			7.980	925.68
	116	1	Sample Handling			3.000	348.00
	13	1	Cu Zn			4.250	55.25
			Cert#1W-2344-RG1				
			3-GST @ 7 % Excluded				93.03

SWASTIKA LABORATORIES



WITH THANKS

PER

*[Handwritten Signature]*

COMMENT:  
 Net 30 Days

TOTAL

Swastika Laboratories  
 P.O. Box 10  
 Swastika, Ontario  
 P0K 1T0

**INVOICE**

NO: 24410

DATE: 02-28-91

PAGE: 1 of 1

GST Registration Number: R 100294743

SHIP TO:  
 Same

SOLD TO:

Total Energold  
 68 Spruce Ave  
 South Porcupine, Ontario  
 P0N1H0

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	F	P	UNIT PRICE	AMOUNT
T325	53	1	Au Assay			7.980	422.94
	53	1	Cu Zn			4.250	225.25
	53	1	Sample Handling			3.000	159.00
			Cert#1W-2406-RG1 #242				
			3-GST @ 7 %, Excluded				56.50

SWASTIKA LABORATORIES

**PAID**  
 APR 5/91

WITH THANKS:

PER *[Signature]*

COMMENTS:  
 Net 30 Days

TOTAL

Swastika Laboratories  
 P.O. Box 10  
 Swastika, Ontario  
 P0K 1T0

**INVOICE**

NO: 24416

DATE: 03-01-91

PAGE: 1 of 1

GST Registration Number: R 100294743

SHIP TO:

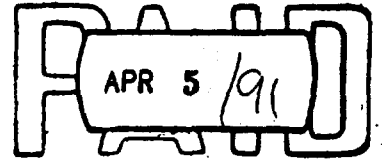
SOLD TO:

Same

Total Energold  
 68 Spruce Ave  
 South Porcupine, Ontario  
 P0N1H0

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	F	P	UNIT PRICE	AMOUNT
7325	7	1	AU Assays			7.980	55.86
	7	1	Sample Handling			3.000	21.00
			Cert#1W-2430-RG1				
			3-GST @ 7 %, Excluded				5.30

SWASTIKA LABORATORIES



WITH THANKS

PER *[Signature]*

COMMENTS:

Net: 30.00

TOTAL

Swastika Laboratories  
 P.O. Box 10  
 Swastika, Ontario  
 P0K 1T0

**INVOICE**

NO: 24468

DATE: 03-08-91

PAGE: 1 of 1

GST Registration Number: R 100294743

SHIP TO:

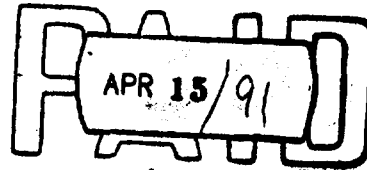
SOLD TO:

Total Energold  
 68 Spruce Ave  
 South Porcupine, Ontario  
 P0N1H0

Same

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	F	P	UNIT PRICE	AMOUNT
T325	62	1	Au Assays			8,750	542.50
	62	1	Sample Handling			3,000	186.00
			Cert#1W-2451-RG1				
			3-GST @ 7 %, Excluded				50.99
<p>COMMENT: Net 30 Days</p>							<p><b>TOTAL</b> →</p>

SWASTIKA LABORATORIES



WITH THANKS

*[Handwritten signature]*



Swastika Laboratories  
P.O. Box 10  
Swastika, Ontario  
P0K 1T0

**INVOICE**

NO: 24513

DATE: 03-14-91

PAGE: 1 of 1

GST Registration Number: R 100294743

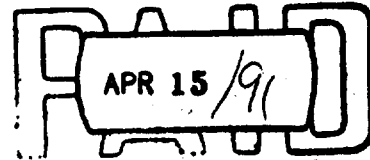
SHIP TO: Same

SOLD TO:

Total Energold  
68 Spruce Ave  
South Porcupine, Ontario  
P0N1H0

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	F	P	UNIT PRICE	AMOUNT
T325	51	1	Au Assays			7.980	406.98
	51	1	Sample Handling			3.000	153.00
			Cert#1W-2478-R61				
	67	1	Au Assays			7.980	534.66
	67	1	Sample Handling			3.000	201.00
			Cert#1W-2479-R61				
			3-GST @ 7 %, Excluded				90.69
<b>COMMENTS</b>						<b>TOTAL</b>	
Net 30 Days							

SWASTIKA LABORATORIES



WITH THANKS

*[Handwritten Signature]*

Swastika Laboratories  
P.O. Box 10  
Swastika, Ontario  
P0K 1T0

**INVOICE**

NO: 24484

DATE: 03-13-91

PAGE: 1 of 1

GST Registration Number: R 100294743

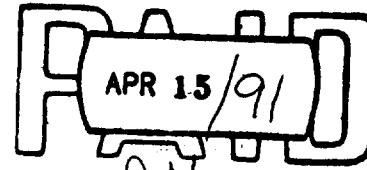
SHIP TO:

SOLD TO:  
Total Energold  
68 Spruce Ave  
South Porcupine, Ontario  
P0N1H0

Same

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	F	P	UNIT PRICE	AMOUNT
T325	7		As Cert#1W-2430-RG1			6.300	44.10
	44		As Cert#1W-2406-RG1 3-GST @ 7 %, Excluded			6.300	277.20
							22.49

SWASTIKA LABORATORIES :



WITH THANKS

PER *[Signature]*

COMMENTS:  
Net 30 Days

TOTAL

Swastika Laboratories  
 P.O. Box 10  
 Swastika, Ontario  
 P0K 1T0

**INVOICE**

NO: 24522  
 DATE: 03-14-91  
 PAGE: 1 of 1

GST Registration Number: R 100294743

SOLD TO:

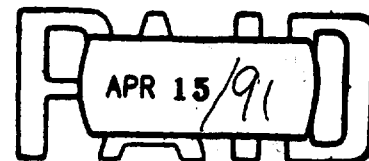
SHIP TO:

Total Energold  
 68 Spruce Ave  
 South Porcupine, Ontario  
 P0N1H0

Same

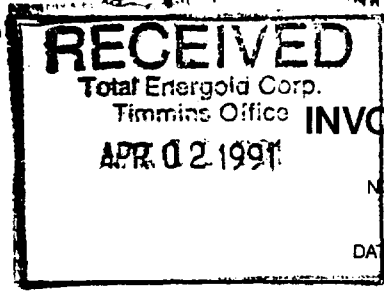
ITEM NO.	QUANTITY	UNIT	DESCRIPTION	F	P	UNIT PRICE	AMOUNT
1028	55		As Cert#1W-2451-RG1 3-GST @ 7 %, Excluded			6.300	346.50
							24.25
COMMENTS: Net 30 Days						<b>TOTAL</b>	

SWASTIKA LABORATORIES



WITH THANKS

PER *M. Gardner*



NO: 24297  
DATE: 03-28-91  
PAGE: 1 of 1

SOLD TO: Reproduction Number: R 100294740

SHIP TO: Same

Total Energold  
48 Bruce Ave  
South Porcupine, Ontario  
P0R1R0

TOTAL ENERGOLD CORP.  
TIMMINS OFFICE

ITEM NO.	QUANTITY	UNIT	DESCRIPTION	AUTHORIZATION	DATE	F	P	UNIT PRICE	AMOUNT
325	67	1	As					6300	422.10
	51	1	Cert#1W-2479-R01					6100	321.30
			As						
			Cert#1W-2478-R01						
			3-BST @ 7 % Excluded						52.04
DISTRIBUTION						AMT			
						298-22		793.40	
						102.50		52.04	
DATE									
COMMENTS: net 30 Days								TOTAL	795.44

TOTAL ERICKSON RESOURCES LTD.  
1500 - 700 West Pender Street, Vancouver, British Columbia, Canada V6C 1G8  
Telephone: (604) 681-9501 Fax: (604) 681-6813

2429

CHEQUE NO. 002429 CHEQUE DATE 04 19 91 VENDOR NO. SWA001

\*\*\*\*\* Seven Hundred Ninety-Five and 44/100 \*\*\*\*\*

CHEQUE AMOUNT \$795.44

PAY TO THE ORDER OF

TOTAL ERICKSON RESOURCES LTD.

SWASTIKA LABORATORIES  
P.O. BOX 10  
SWASTIKA, ONTARIO POK 1T0

PER [Signature]  
PER [Signature]

IE TORONTO-DOMINION BANK, 499 GRANVILLE & PENDER STS., VANCOUVER, B.C. V6C 1V3

⑈002429⑈ ⑆95120⑈004⑆ 0910⑈0513783⑈









80° 00'

78° 00'

50° 00'

ONTARIO  
QUEBEC

-  Felsic Intrusives
-  Sediments
-  Felsic Volcanics
-  Mafic Volcanics
-  Fault
-  "Gold Break"

DETOUR LAKE 8mt ● 0.15oz/t Au

DETOUR LAKE

SELBAIE  
20mt ● 1%Cu, 2%Zn

GOLDEN HOPE  
3mt ● 0.11oz/t Au, 3oz/t Ag,  
9.2%Zn, 0.9%Cu

INCO GOLDEN KNIGHT  
10mt ● 0.25oz/t Au

ST. LAURENT

AGNICO EAGLE  
6mt ● 0.22oz/t Au

POIRIER  
5mt ● 2%Cu, 1.8%Zn

15mt ● 8%Zn,  
0.6%Cu  
MATTAGAMI LK  
ORCHAN  
4.3mt ● 9.7%Zn,  
1.1%Cu

NORMETAL




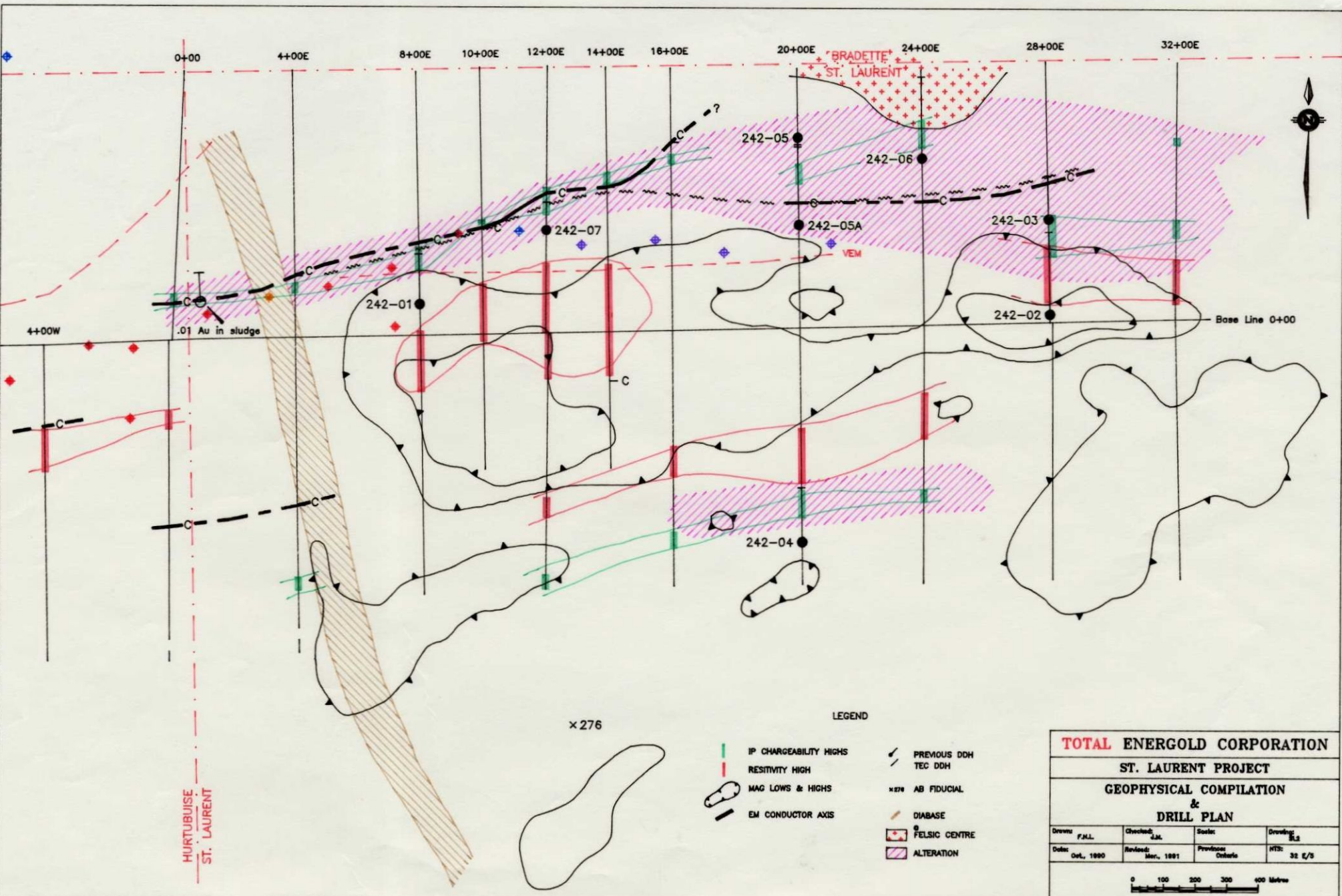
TOTAL ENERGOLD CORPORATION  
CASA BERARDI-DETOUR LAKE AREA

Regional Geology

FIGURE 2

49° 00'

Drawn: P.C.W.			M.V. WHITE & Associates Ltd. TIMMINS, ONTARIO
Date: Dec., 1989	Revised:		
Province: Quebec	NTS:		
Scale:	Drawing: reg-map		



HURTUBISE  
ST. LAURENT

x 276

LEGEND

- | IP CHARGEABILITY HIGHS
- | RESISTIVITY HIGH
- MAG LOWS & HIGHS
- EM CONDUCTOR AXIS
- / PREVIOUS DDH
- / TEC DDH
- x 276 AB FIDUCIAL
- DIABASE
- FELSIC CENTRE
- ALTERATION

**TOTAL ENERGOLD CORPORATION**  
**ST. LAURENT PROJECT**  
**GEOPHYSICAL COMPILATION**  
**&**  
**DRILL PLAN**

Drawn F.H.L.	Checked S.M.	Scale:	Drawing S.L.
Date: Oct., 1990	Revised: Mar., 1991	Province: Ontario	HTS: 32 E/S

0 100 200 300 400 Meters

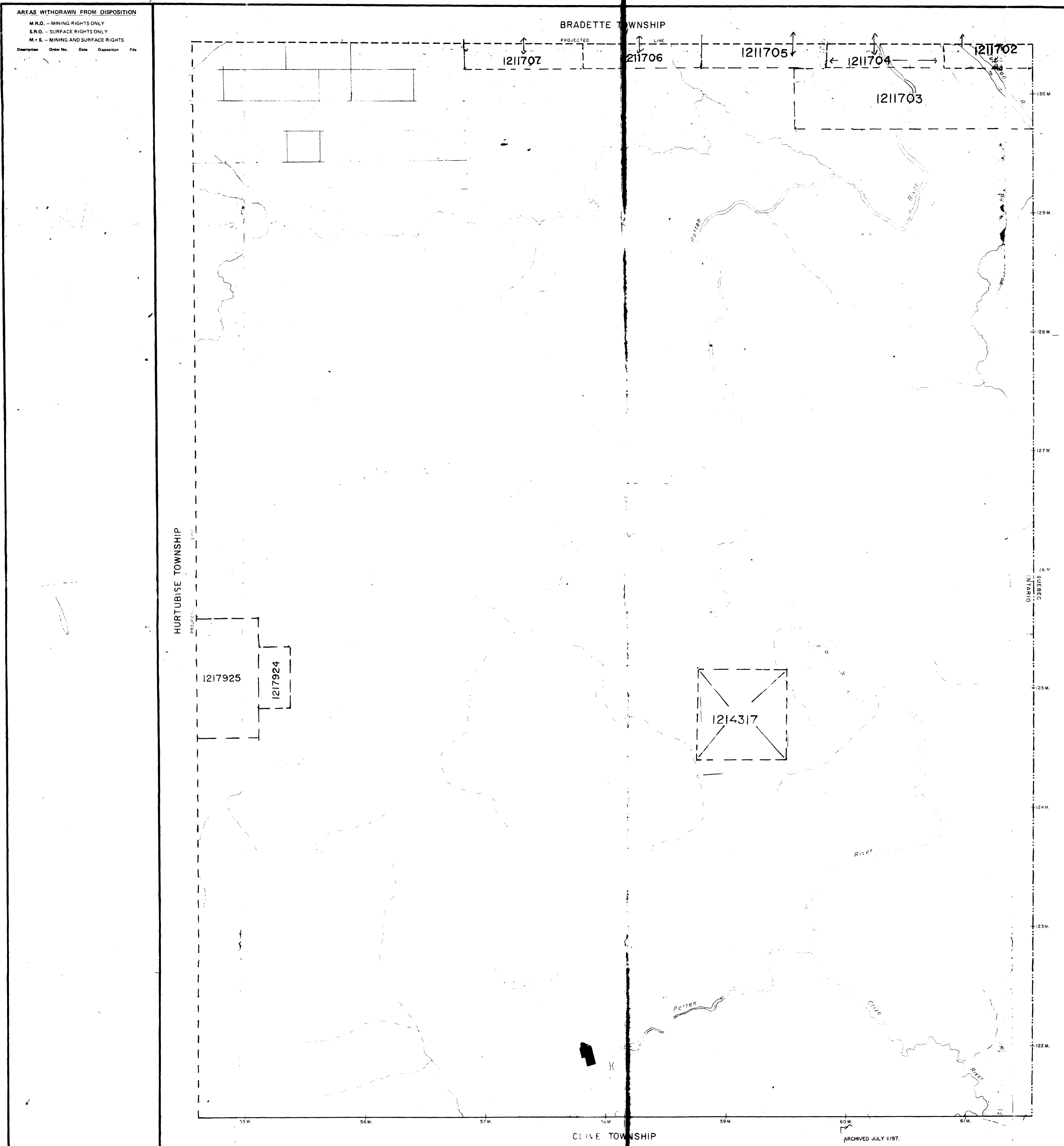


PROVINCIAL RECORDS  
OFFICE - SUDBURY  
MAY 19 1988  
DATE OF ISSUE

0-2262

0-2262

0-2262



AREAS WITHDRAWN FROM DISPOSITION  
M.R.O. - MINING RIGHTS ONLY  
S.R.O. - SURFACE RIGHTS ONLY  
M.-S. - MINING AND SURFACE RIGHTS

Description	Order No.	Date	Department	File

**LEGEND**

- HIGHWAY AND ROUTE NO.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
- TOWNSHIPS, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES
- LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SURFACE OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

**DISPOSITION OF CROWN LANDS**

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
.. SURFACE RIGHTS ONLY	○
.. MINING RIGHTS ONLY	○
LEASE, SURFACE & MINING RIGHTS	□
.. SURFACE RIGHTS ONLY	□
.. MINING RIGHTS ONLY	□
LICENCE OF OCCUPATION	▽
ORDER IN COUNCIL	OC
RESERVATION	○
CANCELLED	⊗
SAND & GRAVEL	⊗

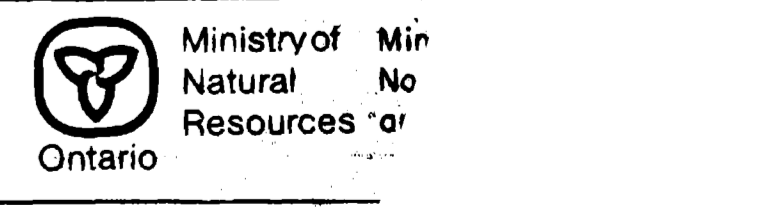
NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6 1913, VETED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 360, SEC. 63 SUBSEC. 1.

Scale 1:20,000

CIRCULATED OCTOBER 3, 1988  
ARCHIVED JUNE 13/96  
ARCHIVED JAN 28/97

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

TOWNSHIP  
**ST. LAURENT**  
M.N.R. ADMINISTRATIVE DISTRICT  
COCHRANE  
MINING DIVISION  
**LARDER LAKE**  
LAND TITLES / REGISTRY DIVI  
COCHRANE



Date: OCTOBER, 1986

ARCHIVED JULY 8/97.

